

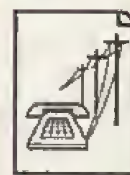
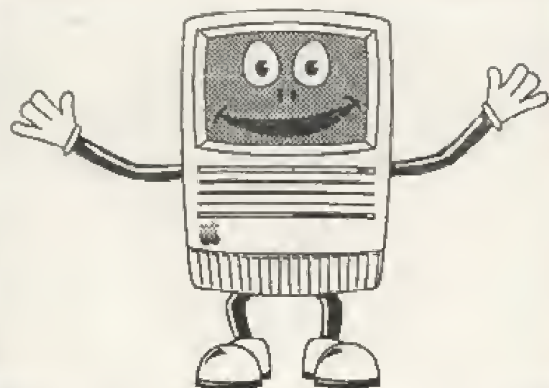
# Apple2000

THE NATIONAL APPLE USERS GROUP



AUGUST 1991

VOLUME 6(4)



MEMBER  
**MNS**  
THE NATIONAL  
MUG NEWS SERVICE



USER GROUP  
**CONNECTION**

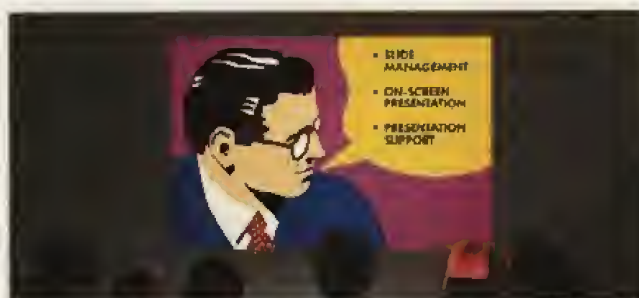
APPLE2000 RECOMMEND  
**SONY**  
DISKETTES



# What would work be like if everybody used MacDraw Pro?

Application
MacWrite II
FileMaker Pro
MacDraw Pro
MacDraw II
MacProject II
Claris CAD
SmartForm Series
MacPaint

More Compatible    More Presentable



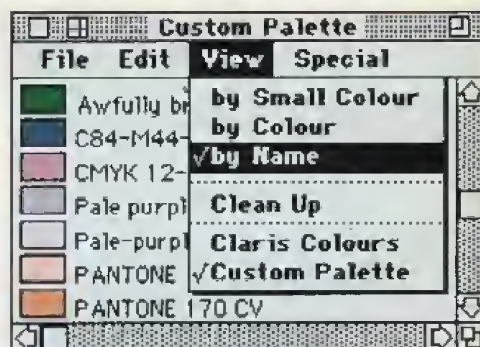
More Productive



More Graphic

✓ All available
MacDraw Pro
Library
Text
PICT
MacDraw
MacDraw II
EPSF
TIFF
MacPaint 2.0
MacWrite II
Microsoft Word 4.0

More Sharing



More Colourful

## More Rewarding



Could your job do with some really exciting changes?

Well, here's our best idea yet: the new MacDraw™ Pro.

We've taken the graphics tool you know and love - MacDraw II - and packed it with power and new features. More than 100 new features in all.

It's the ideal, all-round graphics software for presenting, publishing, designing and illustrating! Allow us to illustrate.

Curves. A hassle with most drawing programs; no big deal with MacDraw Pro. Just use your mouse to click out the general shape you want, and that's it. If you need more precision, you can use standard Bézier handles to fine-tune what you've drawn.

Colours. With MacDraw Pro you create your own custom palettes, and keep as many open as you wish.

You can even name each colour, so your "logo

blue" is never confused with your "sky blue".

Text. It's the Achilles' heel of most graphics software - but not this one. You'll work with the same powerful formatting tools that our MacWrite™ II software is famous for.

The result: instead of inventing unheard of tools that do new things, we let you use familiar tools to do unheard of things. In other words, simply powerful software.

But why read about it? Just visit your nearest Claris dealer.

And draw your own conclusions.

**Upgrade from MacDraw II for £175. Call Freephone 0800 929005.**

CLARIS

Simply powerful software.™

©1991 Claris Corporation. All rights reserved. Claris, FileMaker, MacDraw, MacPaint, MacProject, MacWrite, SmartForm and "Simply powerful software" are trademarks of Claris Corporation. Microsoft is a registered trademark of Microsoft Corporation. PANTONE is a registered trademark of Pantone, Inc. Claris International, Inc., 1 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1BG. Telephone: (06) 756 0101. Distributed in the UK by Frontline Distribution, Intec-1, Wade Road, Basingstoke, Hampshire RG24 0NP. Telephone (0256) 463344. For upgrade enquiries for the Republic of Ireland call Dublin (01) 767 814.

## CONTENTS

Chairman's Corner	Ewen Wannop	2
Letter Box		3
Information and Contacts		8
<del>Apple2000 Index</del>		9
AppleXtras ProDOS 8 and IIGs	August Competition	10
CNC Trainer — a review	Peter Davis	11
Disk Zaps Part 6	Ewen Wannop	12
Publish-It! 3 — a review	Dave Ferris	14
Ralph Russo — biography		16
Disk Access NDA — a review	Dave Ferris	17
Clock Year Routines	Richard Brown	19
Ultimate Fonts — a review	Peter Stark	20
Salvation Renaissance — a review	Dave Ward	21
MD-Basic — a postscript	Peter Davis	22
The Apple //c Motherboard	Lorin S. Evans	24
MusicWriter — a review	Stuart Anderson	26
Font Factory GS — a review	Fred Grotorex	28
Apple II Information Source	Peter Davis	30
Internet	Stephen Pickering	32
Library IIGs Update		34
KansasFest — stop press		36
The Nibbler Speaks	The Nibbler	38
MacChat	Norah Arnold	42
The MacRam Portable — a review	Mike Dawson	45
System 7 Discussed		48
Committee Member Self-Portrait	Mike Dawson	50
SimEarth — a review	Peter Kemp	52
Win-a-Mac Draw		55
On Location	Pam Wilson	56
Battlefront Game System — a review	Peter Kemp	58
Icon Vaults	Paul Schliesser	60
Launch of ClarisWorks — press release	Claris Corporation	64
Fontographer 3.3 — press release	Altsys Corporation	64
CD-ROM Directory — press release	TFPL Publishing	65
Color MacCheese — a review	David Evans	66
Faces — a review	Peter Kemp	68
Voyager Desktop Planetarium — a review	John Arnold	70
Computer Assisted Learning	David Durling	72
Members' Small Ads.		75
AppleXtras Mac 10		76
Mac Library		77
Apple Computers in Hollywood	Apple Computer Inc.	78
SuperCard 1.6 — press release	Aldus Corporation	79
Portables to the Persian Gulf	Apple Computer Inc.	79
Members' Small Ads.		80
Advertisers' Index		80

Local Group details have been removed. They will be included in Apple Slices in future.

### There are a number of ways to contact Apple2000

If you wish to order goods or services from Apple2000 or just leave us a message, call Irene on 0534 249 0101 (Ansafone during the day). Alternatively you can Fax your order to 0534 249 0102 or write to the PO Box. If you use commas you can leave orders on TABBS addressed to the SYSOP or contact us on AppleLink (BASUG.1).

If you are experiencing problems with Apple hardware or software Dave Ward and John Arnold run the Hotlines and will try and help you.

We are very interested in the activities of local user groups, and if you have any information which you would like publicised John Lee would like to hear from you.

We reserve the right to publish, without prejudice, any advice or comments given to members as a result of letters received, in the journals of Apple2000.

A little praise for a few of our authors wouldn't go amiss. Send all comments, and contributions, via the PO box, especially suggestions about what you would like to see in your magazine.

Apple2000 supports users of all the Apple computers. The ITT 2020, I, II, II+, //c, //c+, IIGs, IIGs+, ///, Lisa, XL, Mac 128, 512, MacPlus, Classic, SE, SE/30, Mac LC, II, IISI, IIGx, IIGi, IIGx, IIGx and the Mac Portable

Contributions and articles for the magazine are always welcome. We can handle any disk size or format. Please send to PO Box 3, Liverpool, L21 8PY

#### NOTE:

The front half of the magazine is mainly for the Apple II. Apple IIGs and Apple /// The back half for the Macintosh and Lisa. Look for the descriptive page icons.

#### Key:

Apple II, //e and //c

Apple ///

Apple IIGs

Macintosh, Lisa

Macintosh II



## Contact Points

Administration: Irene Flaxman

0534 249 0101 (Ansafone during the day)  
0534 249 0102 (Fax)

Apple II Hotline: Dave Ward

0534 249 0101 (Ansafone during the day)  
0534 249 0102 (Fax)

Macintosh Hotline: John Arnold

0534 249 0101 (Ansafone during the day)  
0534 249 0102 (Fax)

TABBS: Ewen Wannop - SYSOP

0534 249 0101 (Ansafone during the day)  
0534 249 0102 (Fax)

AppleLink: BASUG.1

Reviews: Elizabeth Littlewood

0534 249 0101 (Ansafone during the day)

Local Groups: John Lee

0534 249 0101 (Ansafone during the day)

TimeOut & ProSel: Ken Dawson

0534 249 0101 (Ansafone during the day)

AppleWorks: John Richey

0534 249 0101 (Ansafone during the day)

# Chairman's Corner

## Apple2000 1980-1991

□ System 7.0 for the Macintosh is now firmly in place. The trepidation is over and we now have had a chance to experience the beast in depth. This edition of Apple2000 has been prepared under the new System and we are able to report that so far we have had no problems.

In fact our original pessimism has given way to elation as we realise that System 7.0 seems much more stable than its predecessor System 6.0.7. Of course this may simply be due to the fact that there are now less CDev's and Init's on our systems than before.

I ran the 'Before You Install' HyperCard stack to see which files I should take off and which I should leave. I received a pessimistic report from the stack, as in practise I have been able to keep many of the applications it said I should update!

The main files I have kept from my original system are Suitcase and Adobe Type Manager. Suitcase has allowed me to mount some odd fonts that would not install in the System 7.0 suitcase and Type Manager allows me to mix TrueType and Postscript transparently both on screen and to various printers. So far I have printed to the

LaserWriter, StyleWriter and Hewlett Packard DeskWriter.

The conclusions are a big thumbs up for Apple. They got it right in the end.

The main omission from my point of view are no ProDOS or MS-DOS drivers to bypass File Exchange. Although there is a new version of File Exchange it still has the bug which prevents raw transfers to a ProDOS disk. The lack of MacroMaker has been solved with the release of QuickKeys version 2.0.

□ We are now at that slack time of the year for Apple when we can expect announcements of price reductions on certain models. If by the time you read this reductions have been made, it will be fairly certain that those models will either be dropped or upgraded in the autumn round of releases from Apple. We can expect a new LaserWriter series, a tower Mac and possibly a superfast SE/40 using the new 68040 chip.

□ The Apple II has not been forgotten by Apple after all. At Kansas (see separate report) there was announced System 6.0 for the IIs. This is a revamped operating system and a Finder which is now

more Mac like. In fact with a Mac FST included it has become more powerful than even System 7.0!

An Ethernet card has also been announced and a SuperDrive card which will bring 1.4mb HD disks to both the IIs and the //e.

It seems that we can continue to see some kind of support for the II series even if they do not openly advertise the fact!

□ HyperStudio and HyperCard GS are now firmly part of the IIs scene. The ability of HyperStudio to control Hypermedia systems such as video recorders, video disks and Midi devices have made it a powerful addition to the repertoire of the teacher in American schools. Beta versions of HyperMover that allow files to be interchanged between HyperCard for the Mac and HyperCard GS have been seen. We shall be bringing you a full review of HyperCard GS very soon and hopefully by then we shall see final versions of this important utility.

□ The moves between Apple and IBM have brought much speculation to the Apple world. I do not see Apple giving too much away to IBM and do not see them losing any market lead as a result. The Classic and LC have taken the world by storm. We are already seeing the price of hard disks tumbling down, it just remains for software to reach a sensible price and the Mac world should be at last seen as a real alternative to MS-DOS.

Ewen Wannop

Annual subscription rates are £30.00 for UK residents, £35.00 for E.E.C. residents and £40.00 for other overseas members.

Apple2000™ is a trading name of BASUG Ltd, a non-profit making independent company limited by guarantee.

The contents of this journal are copyright of BASUG Ltd and/or the respective authors. Permission is granted for non-commercial reproduction providing the author and source are properly credited and a copy of the relevant journal is sent to BASUG Ltd. The opinions and views expressed herein are those of the various contributors, and are not necessarily endorsed by BASUG Ltd.

This journal is published bi-monthly by BASUG Ltd as a benefit of membership in February, April, June, August, October and December. The Apple Slices newsletter is published in the intervening months. The copy date is the 1st day of the month preceding publication. Advertising rates are available on request.

Apple™ and the Apple logo are trademarks of Apple Computer Inc. Macintosh™ is a trademark of Macintosh Laboratory Inc and used with the express permission of the owner. Telecom Gold™ is a trademark of British Telecom plc. Apple2000™, Apple Slices, AppleXtras, Mac2000 and The FORCE are trademarks of BASUG Ltd.

This issue was prepared using Aldus PageMaker™ 4.0, MicroSoft Word™ and Claris MacWrite™ under System 7.0.

### The Editorial team is:

Apple II  
Macintosh  
Reviews

Ewen Wannop  
Norah Arnold, Irene Flaxman  
Elizabeth Littlewood

Many thanks to all those who work behind the scenes and who receive no personal credit. These people are the stalwarts of Apple2000.

Additional thanks go to Val Evans for designing our front cover, and to Walter Lewis of Old Roan Press (051-227-4818) for our printing service.

Apple2000 are Founder Members and  
Wholehearted Supporters of the  
Apple User Group Council





## A simple line drawing of a paperclip, oriented diagonally. It is positioned over a textured, shaded area that resembles a piece of paper or a surface.



As for the bugs you reported in OverMatter. Firstly what happened to technical support? If you buy a piece of software and it all appears not to work, do you just put it on the shelf and say "Oh well, never mind"? Of course not, you phone for technical support. This

My point about the attributes not being displayed was that I had no idea what was going on. The actual point

As you said, although nothing is specifically mentioned regarding the finite life of some 6000 copies, every

Q If you have an urgent problem you should ring the Hotline to get help. Letters and Fax submitted to Apple2000 will normally be dealt with as part of the editorial content of the next magazine. We shall endeavour to answer problems if at all possible before publication, but due to the large volume of letters received this may not be possible in all circumstances. Please submit all letters and articles to the magazine on disk wherever possible. The disks will be returned to you when the magazine is published. If you have a modem, send us letters, articles and Public Domain programs to the Sysop on TABBS (012 235-7431755)

report I read seems to mention the fact. I sue the StyleWriter for letters, in-voices, estimates, etc. (ie. where pres-entation is important) and the ImageWriter for quick hard copies, or less important correspondence. In this way I hope to extend the useful life (to me) of the StyleWriter.

Thanks again for the review, very fair I thought.

**Joe de Hoop**

PS. I have just gone over to 7.0 .... and no way will the Spooler work, so it's waiting time again!

West Hagley  
Worcestershire



Dear Editor,

Why doesn't my new StyleWriter printer print where I expect it to? This letter is printed using a Macintosh SE20.

As you can see, the text is not in the centre of the page although the margins are supposed to be 2.54 cms with a 6 cm top margin. The box round this paragraph shows it more clearly.

FreeHand 2.0 also has a problem when printing to A4 paper - having selected A4 as the illustration size. A dialogue box tells me that the illustration is too big to fit! I can draw smooth ellipses and lines at any angle, but tints and angled text prints at the same resolution as the screen. Gradual shades look like a series of patterns!

I wanted a StyleWriter to provide on-the-spot proof copies when I visit customers to discuss design work but in practice, I have to return to the office and use the laser printer.

Does the driver need a modification?  
**Adrian E. W. Price**

□ Firstly your letter clearly shows that the left and right margins are not the same. The left is 2cms and the right almost 3 cms. I found exactly the same problem using MacWrite II. I do not know the answer to this one but I think I saw somewhere that there is indeed a bug with the StyleWriter driver that incorrectly prints on an A4. This would explain why FreeHand thinks it can't print the complete drawing to that page size. I would suggest complaining to the dealer so he can inform Apple. There should then be an update of the drivers in due course to solve this problem.

Secondly, using FreeHand to generate artwork and printing to the StyleWriter or any of the non-post-script printers, just will not work as you might expect if you are a regular LaserWriter user. Only PostScript can cope with tints, rotated text or any EPS drawings. With a QuickDraw printer the Mac can only print any non-QuickDraw information in the files as screen dumps. TrueType cannot display rotated text in quite the same way as PostScript. You may improve things by using Adobe Type Manager. The cumbersome and expensive solution is to use Freedom of The Press to interpret PostScript output into a higher quality printout on the StyleWriter. Check out FOP as I am not sure whether there is support for FOP and the StyleWriter yet.

**The Editor**

Newbridge-on-Wye  
Powys



Dear Irene,

I have been having some problems transferring data from Omnibus 5 to Page-

Maker 4, such that styles are picked up on the way.

Neither Aldus nor Blyth could solve the problem, but I finally cracked it!

I had used the Omnibus 5 parameters option to insert margins and one was at the top of the page and one on the left, thereby adding the spaces! Now that I have cracked it, perhaps the following instructions should be added to the manuals:

#### PageMaker

When printing to file in a database program, DO NOT insert margins, as PageMaker demands that the first tag is at the top of the page and is the first character on the first line.

#### Omnibus

DO NOT use parameters to insert margins when printing to file, if the destination program (such as PageMaker) demands that the first tag is at the top of the page and is the first character on the first line.

**Frank J. Pycroft**

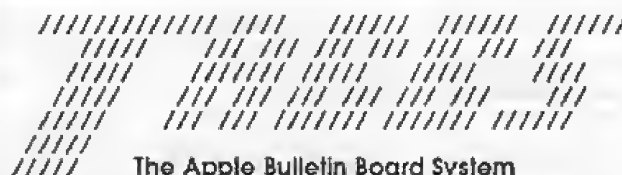
Electricity Research &  
Development Centre  
Capenhurst  
Chester  
CH1 6ES  
051-339 4181



Dear Sirs,

We have a substantial program called 'ESIBEEP' which runs on IBM-compatible PC's. One of the Regional Electricity Companies has asked us to investigate the possibility of transferring this program to a Macintosh environment.

Since we do not have the requisite skills ourselves I wonder if you could



**The Apple Bulletin Board System**

Speeds: V21(300) to V22bis(2400) 8N1 24 hours  
Modem: PACE Ultralink 32 using V42 LAPM MNP

□ The TABBS message system is more than just a Bulletin Board. With a Shopping Mall where you can browse the Apple2000 catalogues and order the goods you require; a library with over 75mb of compressed files for the Apple II, IIs and Macintosh; a private and public E-mail service; file transfers that can be enclosed in private or public mail; message areas covering many topics including the Apple II, the IIs and Macintosh; lively debating halls; with Xmodem, 1k Xmodem (Ymodem) file transfers; multi-speed access at all common speeds; 24 hour operation; and much, much more make TABBS the premier Apple Bulletin Board serving Europe.

Give TABBS a call today!

## The Apple2000 Bulletin Board System

>>>> TABBS TOP MENU <<<<<

<#>Endcall <.>Utilities  
<.>Time <G>oodbye

<1> Apple II folder  
<2> Apple IIs folder  
<3> Macintosh folder  
<4> Apple2000 folder  
<5> Developers folder  
<6> Public areas

<D>ownload Libraries  
<M>ailbox  
<N>ews Columns  
<A>vertisement Hoarding  
<S>hopping Mall  
<W>hat's new on TABBS  
<H>elp files for TABBS

Ring TABBS on **02122074137** at any speed through V21, V22, V23 to V22bis 8N1 V42 MNP  
TABBS is available 24 hours a day





put us in touch with any of your members who might be interested.

The program consists of a computation-intensive core written in Fortran 77 communicating through disc files with a front-end which is presently in Fortran 77 making extensive use of the Lahey 'Spindrift' windows facilities but is being rewritten in C using C-scape for the screen handling, and a graphical back-end which is again written in Fortran 77 using the HeartLand 'Hgraph' package.

I shall look forward to hearing from you or your members.

**P Bassett**

**Research Officer**

**Commercial Buildings Group**

□ Can anyone help with this please?

Elite Software Company  
4 Hawthlands Drive  
Hailsham  
East Sussex  
BN27 1HE



Dear Sirs,

Concerning the letter from Mr. Lyes and the Boffin's reply in the June 1991 issue of Apple2000, I would like to remind all members that the Format-80 word processing system runs on the Apple II+ and IIe, is available new and is fully supported by Elite Software. Format-80 requires 64K RAM and an 80 column card and costs £99 plus VAT.

Alternatively Wildword operates on an unmodified Apple II+ and costs £35 plus VAT.

Format-80 and Wildword are available from Apple dealers or direct from Elite Software Company.

**G. K. Beckmann**

□ I retreat with red face. Apologies to Elite and to Format-80. A quick glance at our advertising would have reminded me of Format-80 still being in production. I have unfortunately been so used to questions about packages which are no longer available that I did not do my research properly.

**The Boffin**

Bangor  
Co. Down



Dear Apple2000,

I have an Apple IIc with a Epson MX100 printer. I use the Apple Writer II word processor to print a magazine for a local football team (Bangor Amateurs). The problem I have is I need a software package to enable me to print headlines, borders small fonts and large fonts and some pictures etc. Is there a package that will do all this for me and be compatible with my existing software ie. AppleWriter or would I have to purchase a new word processing package.

I also have a interface card I received

with my Apple it is marked Ramex 128 iss5 Vergecourt Ltd. 1982 could you tell what this card is and what it does.

One other question I would like to ask is there any golf games on the market for the Apple IIc like the ones available for IBM ie. World tour golf or Augusta ST.Andrews if there is could you tell me where to buy them.

**Robert Tipping**

□ You will not be able to print headlines and borders or even font changes from within AppleWriter other than the font styles already built in to the printer. You would need to use either a full blown desk top publishing program like Publish It!, or generate material from other programs and cut and paste using scissors and a pot of glue. Print Shop will give you borders and banner headlines. Printrix or TimeOut SuperFonts under AppleWorks will give you beautifully printed fonts. There are other such programs around. Check with Bidmuthin or MGA what they have in stock.

The Ramex 128 card is a 128k memory card. It can be used in two ways, either by programs which recognise it and use it for storage such as Copy II Plus, or with its own supplied software it can turn it into a pseudo disk drive. This is of limited use these days as it does not conform to the standard device format that most programs expect of a Ram disk drive under ProDOS.

World Tour Golf runs on the IIGs only, but I am sure there should be a golf game which will run on the IIe. Check again with Bidmuthin or MGA for availability.

**The Editor**

Selby  
North Yorkshire



Dear Ewen,

I am in the process of deciding to have my symBfile hard drive converted from DOS/PASCAL/CP/M to DOS/PASCAL/PRODOS as per the article by Eric Sausse in Apple2000 Oct. 90. I use the Apple IIe enhanced. So would you please put your ProDOS hat on and answer a few questions on the pro's and con's of the subject.

1) I have quite a few DOS 3.3 program disks that I use occasionally. Would it be to any advantage or indeed possible to change these disks to ProDOS? Please tell me how to achieve this if there is an advantage. I have tried CONVERT on the ProDOS User's disk but lost my way. I also have Copy II 7.4 which also claims to convert.

2) ProDOS comes in many versions, from, (I believe) 1.0.1 to the P8 series. Are there any snags in standardising on the latest version by replacing the earlier versions with version 1.9? (XTRAS.TOOLS/ Disk PRO.25). A run through of the method(s) involved would be most appreciated.

3) ProSel 8 looks to be a good idea to use as a program selector, or maybe something less sophisticated would suffice. Have you any observations on this point.

**Eric Leadbeatter**

□ I am not all that familiar with the limitations of using a symBfile with ProDOS. Certainly some of the older custom drives which did not conform to ProDOS block standard could only be used with custom ProDOS often supplied with the drive. I am not sure if that is the case here.

Anyway, to answer your questions as best I can.

1) DOS 3.3 programs can be converted in some cases to ProDOS. This only usually applies to Basic programs which are not operating system dependent. Even then there may be some disk commands in Basic programs that will need to be changed or altered to work under ProDOS. The INIT command is not present in ProDOS. Applications or Binary programs will usually not convert as they require DOS 3.3 vectors to be in a particular place in memory for them to work. Text files can be converted of course, but the hi-bit is usually stripped as this is done. This would not matter if the data was purely text.

Copy II 7.4 will convert files as I have described but whether the resulting file will run will depend on the above.

2) ProDOS does indeed come in many versions. The changes over the years have been for many reasons. Some have simply been bug fixes, but many have been to cater for evolving machines like the IIc and IIGs. The most recent ProDOS not only sees the clock on the IIGs but is also network aware. I don't think this is something you would need to worry about yourself. To replace with a new version of ProDOS you normally would only need to copy the new one over to your boot disk. Precisely what your symBfile requires in the way of customised ProDOS may preclude this being done in quite such a simple way. I would suggest keeping a copy of your original ProDOS on the symBfile and then trying out the latest ProDOS and work backwards from there. Although ProDOS 1.0.1 does still of course work I would suggest using version 1.2 or later.

3) ProSel 8 is indeed a good program selector. There are now quite a few of these selectors in our libraries, check out the Xtras notes in the magazine. The latest ProDOS also has a program selector built in so if you are able to run this version of ProDOS you can use that instead. Each selector has its own flavour and which suits you will depend on exactly how you want to use your hard disk.

There is even MouseDesk from Apple which gives a Macintosh like selector but you would need a mouse card to make that work.

**Ewen Wannop**





Dear Sir,

I have an Apple //c from which I have been attempting to transfer some text (or rather ASCII files) to a PC which is my main computer. I have been using the modem/serial port on the Apple, (which is a five-pin DIN socket) to connect a null modem cable for serial transfer to the PC.

As I have no communications software for the Apple (only AppleSoft Basic), I have so far been attempting to redirect output to the serial port by means of the command PR#2 with Kermit (a very good comms program) running on the PC. This, however, causes the Apple to hang and the PC responds with various error messages (for example: unable to receive Initiate packet). I believe the

problem might possibly be that the Apple is not recognising that there is any device connected to its serial port and therefore not transmitting anything. I have checked the wiring of the DIN serial lead and believe it to be correct.

I believe I have tried all the obvious possibilities for the solution of this problem within the limited software available to me (ie. AppleSoft on ROM) and perhaps you have a comms program that would do the trick or any other advice on how to get this to work. I do not seem to be able to format (or INIT) 360k 5.25" discs, but if it would help, I could forward an unformatted disc to you.

**Sally Scott-White**

PS. I am desperately trying to avoid the massive retyping job that would be inevitable if the comms link fails, and having set up a link the Apple is useful to carry around for other things in the future and I'd like to avoid using a disc conversion service.

□ First of all as you may well have surmised, Apple 5.25 disks are not prepared in the same way as IBM disks. This means you cannot interchange them directly between the two machines. The only way to transfer files using the //c is by a direct link between the serial ports. So far so good, you have already got this connection setup.

However the method you have tried just will not work. In any connection between two machines there must be some attempt to control the flow of information. This is simply to stop the output flow when the other end cannot accept any more input. Often the method used to control flow can also allow for some form of simple error correction.

Kermit, like many communications programs, uses a flow control and error correction based on splitting the data up into separate packets. It then receives these packets one at a time verifying them before asking for the

next one. Unless you also run a version of Kermit on the //c, no packet that Kermit on the IBM will recognise will be sent out. Hence the error message you quote.

We do have a version of Kermit in our library. It is not very friendly and certainly is not as good as an IBM version. It would however do what you want.

You will need to use such a comms program of some sort on the //c as this is the only way the Apple can communicate successfully outside itself. Which program will depend on the operating system you are using. I presume you are probably using the ProDOS operating system and so a version of Kermit or a comms program supporting Xmodem transfer would also work.

Kermit does not support Xmodem transfer so you might need another comms program on the IBM if you chose this route.

If you are already familiar with Kermit on the IBM then perhaps the Kermit we have could be your answer.

I am not sure what you actually mean when you say you cannot format a 360k 5.25 disk. Only the IBM can format disks to that specification. Apple disks are always 140k single sided and Apple format only.

**Ewen Wannop**

TABBS  
E-Mail

Dear Ewen,

I would like to inform the members of APPLE 2000 that my Phone number has changed. It is now 091 257 9078 and NOT 0532 612 375. If people who require help and have large problems then either ring me just after 6pm or mail me on TABBS or ring me and then after speaking to me they may download their letter. If ringing please speak to me as I need to plug the Modem in. TABBS will be looked at once a fortnight if not more often.

If the gentleman from Corbridge is still having problems then ring me because I am now living in Newcastle and can easily call.

Now, I am asking for help.

Does anyone have a Dollar (U.S) bank account so that I do not need to send money through the post for Shareware.

In Bards Tale II what is the answer to the first snare of death.

In Tass Times in Tone Town what do you do after having rescued Gramps.

In Dream Zone how do you get on the airship or into the Castle.

How do you get into the closed room on the Heart of Gold in Hitchhikers Guide to the Galaxy.

Can all answers please be straightforward as I am not good at cryptic clues.

I possess the Apple DMA SCSI card but the drivers will not work with the very latest GS/OS. Is there an update available and where can I get it from?

Although APPLE 2000 has a list of members addresses which is confidential it occurred to me that many people must be living near one another but do not realise it. So with your help I propose to compile a table of names and addresses for each area. I will then submit this table to APPLE 2000 for publication.

In order to achieve this I would be grateful if people interested in this would send their name, machine, address and phone number on a postcard to this address.

**Alan Armstrong**

100 Manchester Ave  
Weymouth, Dorset  
DT9 8EF

The format could be Mr. Smith, Milton Keynes 1234 567890 Apple II/GS or more detailed.

Why am I doing this?

Well I wish to meet and correspond with other Apple II/GS users and I do not know where they live.

If you live in a little town or village then please give your nearest large town and county.

If you send your full name and address then when the table is published you may be pestered with junk mail from computer firms so be warned, also by supplying your name and address you are allowing it to be published but only, if they will, in APPLE 2000.

Chairmen, Presidents etc of clubs could just send their club address and meeting times and a single contact address/ number.

In a previous issue of APPLE2000 a reader mentioned an American Magazine called GS+. I have subscribed to this magazine for a year and can thoroughly recommend it to others. It is worth subscribing the \$66 airmail or \$45 surface mail for the magazine and disk. The magazine has interviews with Apple related people be they programmers or corporate staff as well as supplying top quality software such as NDAs ( comms programs, WP programs ) also software locks, window shufflers and a few other programs that I have not worked out what they do yet. Each program is supplied with documentation and also information on how it actually works as well as the source code. So if you are learning or writing in Pascal, C or Assembly language then this magazine is a must. For others it is interesting and keeps you abreast of what is happening in the APPLE II GS world of the Good ole US of A.

The address to send subscriptions to is:-

GS+ Subscription Services,  
c/o EGO Systems  
PO box 15366  
Chattanooga  
TS 37415-0366  
USA.

For those with business phones the number is: 0101 615 870 4960



9am to 6pm EST. (ie the middle of the night. I think the 0101 gets America and the rest is what ECO systems give as their number.

If anyone wants a single example of what the magazine is like then send me a SAE and an idea of what you are interested in.

**Alan Armstrong**

□ I leave members to respond to most of what you have said. However the SCSI card problem can be solved quickly by using the drivers on the System 5.0.4 disks and not the ones that came with the SCSI card. Simply tell the Installer on 5.0.4 you want to use the SCSI port and it will do the rest.

We will publish any names that you supply. We should print it as a separate sheet and supply on request as this would avoid some of the junk mail you suggest and could mean that the addresses were already sorted into areas. We cannot of course use our own database as we are bound by the Data Protection Act. If you yourself build a list of names and addresses on disk, remember that you too will be bound by the Act!

**The Editor**

Compuserve  
E-Mail

Dear Editor,

Ref the DJ printer drivers. I am using Harmonic and the driver from Seven Hills Software. They both seem to work well.

They do however require some fine tuning to get the desired print out which so far I have found expensive in ink.

For general info I have recently purchased an Indelible INK refill for HPDJ cartridge from a firm called RSC Corporate Computing. 0523.243301. You get a package of two refills costing £7.99 + VAT. They consist of a plastic bellows containing the ink and a needle tube that is inserted to the full depth of the cartridge. A gentle squeeze and you are up and running again at a quarter of the cost of a new cartridge.

**Anonymous ...** (Sorry but I have lost the ID of the person who sent this! Ed.)

Biggin Hill  
Kent

Dear Editor,

1) Please could you let me know whether any library software exists for transferring an AppleWorks Database onto a PC for use with Microsoft Works.

2) What educational software is available suited to the bright 2-3 year old child.

**David Stelert**

□ You will need to make two steps to transfer Database files from the Apple to the PC. First you must print out the

data as a DIF text file. You will then need to transfer this to the PC (see the answer to Sally Scott-White above). I am assuming that Microsoft Works can then read a standard DIF file.

There are too many disks in our library for us to be able to know exactly what would suit your child. We have not got a complete description either of the disks as many are now quite old. I would suggest getting in touch with MGA in Rye. MGA hold a stock of software for the Apple and also have copies of US Catalogs that might be able to help further.

**The Editor**

Orpington  
Kent

Dear Apple2000,

I have an Apple Iigs and I think it is brilliant. The sound is excellent and the graphics are good. Now comes the problem. I have seen pictures which have 3200 colours a screen. They are excellent. What is the different between them? How are they produced and how come programs cannot (Games, Art etc.) take advantage of it?

Another question is how many colours a screen and line can 320 by 200 and 640 by 200 have? And why can't they have more?

Please keep up the effort!  
**A. J. Webber**

□ The hardware of the Iigs only allows a limited number of colours to be displayed on any one line. For the 320 display mode this is only 16 colours. In the 640 mode this comes down to four colours, but by a quirk of the way the colour palettes are addressed in 640 mode, can appear to give 16 colours through a dithering technique. You can see more colours on screen than this as each line displays using one of 16 colour palettes linked to it. Each of the 16 palettes can be set up with different colours. This means that any one screen can have  $16 \times 16 = 256$  colours. As these palettes can be changed easily the 256 colours can be chosen from a main palette of 4096 colours in all. Dithering can further increase the apparent colours but with a reduction in resolution.

The 3200 colour screens are in fact an illusion. Persistence of vision does not allow the eye to see separately each of the 60 frames that are displayed every second on the Iigs screen. All you see is a steady picture. The 3200 pictures are displayed using special software that changes the palettes while the screens are displayed. This can give the illusion of more colours on the screen as the palettes are changed dynamically.

The software that achieves this illusion runs flat out while the picture is displayed. In fact if you switch your Iigs to 1mhz speed or even to the 50hz display, it will be too slow and run out

of time and garbage the 3200 screen. There is simply no time to do anything else. For this reason these screens cannot be used in games or other programs as you must have some processor time in hand to do other things. I have seen a demo of a proposed paint program called Dream Graphix that will allow working with these screens. I shall be interested to see if it ever appears on the market place.

**The Boffin**

London

Dear Sir,

I have accidentally scrubbed my copy of WordHandler for the ][+.

Can anybody help me out with a copy of the master disk? I will reimburse postage etc.

Please phone 0171-724 0300 (daytime) 0171-462 7516 (evening)

**Mr. Lee**

□ Again, can anybody please help with this one?

Market Drayton  
Shropshire

Dear Ewen,

Remember when I left you a message saying that New Century Schoolbook and Helvetica Narrow would not print to the LaserWriter under System 5.0.x? I have been given the cure. The Font name in the Font ID Information has to be changed. If you rename them to "NewCenturySchibk" and "Helvetica-Narrow" these will print out fine.

**Chris Beckett**



#### Footnote:

On page 6 of the June Apple2000 we asked if anybody knew of the reference to the Ilcx power supply problem that we had printed. If you remember we scoured the back issues and could find nothing. Of course we could not find it in the magazine, we did not think of checking Slices. It is pointed out firmly to us that the reference should have been page 7 of the September 1990 Apple Slices!

**The Editor**

## Compuserve

□ We have asked you all to send us your Compuserve/Forum ID's. Please send us your ID's either to the Apple2000 ID 76004.3333 or to the PO Box in Liverpool or of course to the Sysop of TABBS (0225-743797).

Apple2000	76004.3333
John Beattie	100012.360
David Collins	100016.3060
Michael Dawson	100015.2232
Gary Doades	100016.2353
Felim Doyle	100016.1151
David Evans	100014.1161
Mateen Greenaway	100016.602
Alastair Greenstreet	100010.742
Dale James	100016.1152
Bryn Jones	71307.1457
Mark Hooper	100014.374
Jihad Jaafar	100016.526
Richard Kelly	100029.177
Peter Kemp	100016.1172
Andy Letchford	100016.1771
Elizabeth Littlewood	100016.401
John Maltby	100014.2216
Mark O'Neill	100016.476
Steve Perry	100013.365
Jeremy Quinn	100016.560
John Richey	100016.1037
Russell Ridout	72007.211
Arthur Robinson	73457.3614
James Southward	73767.1336
Ahmet Turkistanli	100016.3365
Donald Walker	100015.256
Andreas Wennborg	100012.342
James Walker	100013.142
Ewen Wannop	76224.211
Brian Williams	100016.2735

## Contacts

### Compuserve/Forum

World's largest online database with many specialist Apple forums. Large libraries of PD and ShareWare software, real time conferences, message areas and much more.

Accessed either directly on 071-490 8881, or through the BT DialPlus network. You do not need to have a DialPlus account to access Compuserve.

It will cost you around £8-£12 an hour inclusive of all online charges, network access and local phone call.

To join contact:  
Compuserve/Forum  
Freepost (BS 6971)  
15/16 Lower Park Row  
PO Box 676  
Bristol  
BS99 1YN  
0800-289 378 or 0272-255111

Mention you are an Apple2000 member and the joining fee will be waived. If you are a Macintosh user then order a copy of Information Manager at the same time.

## AppleLink

□ Many of you will already be members of AppleLink™ and others may be thinking of joining. For simple E-Mail it cannot be beaten. It will also keep you up to the minute with what is happening at Apple headquarters. We would like you to send us your contact ID's to add to this list.

Apple2000	BASUG.1
Cumbrian Computers	CUMP.COMP
Herts User Group	NA.HERTSUG
Liverpool Group	LIVERPOOL.UG
Mosaic Computers	MOSAIC.COMPU

## Help Lines

□ Members having offered specialist help facilities are listed below:

Alan Armstrong (Apple II+, Iigs)

Ken Dawson (TimeOut, ProSel)

A.W. Harmer (Mac)

Leonard Horthy (4th Dimension)

John Richey (AppleWorks)

## Radio Hams

□ In response to our recent request we have the first Radio Ham call sign!

Andy Harrington G1XLW  
(Packet Radio Mbox) GB7SLT

## CROSSWORD - SOLUTION

	L	I	N	S	E	E	D	O	I	L	
R	O	I		F	O	D					
H	I	G	H	T		F	A	R	M	I	N
I	I	R		E	Y	O		U			
N	O	C	H	O	I	G	E		E	T	U
O			G	T	K	I		L			
C	O	F	F	E		P	E	N	C	I	L
E		A	N		P	E					O
R	U	C	K		E	L	E	P	H	A	N
O	T		S	A		L		N		I	
S	H	O	R	T	L	Y		E	A	T	E
	R		Y		O		F	I		E	
	C	Y	B	E	R	N	E	T	I	C	

□ The April Crossword was correctly solved by D. Price Jones (membership number 4453) who chose Newsroom as the prize.

## August Trivial Quiz

### Rules of Engagement

The entry with the most correct answers will win first prize. Please remember to indicate which of the three prize choices you would like.

Only entries from current members of Apple2000 will be eligible.

No member of the committee or the editorial team may enter.

Our decision will be final.

Only entries received in the PO box in Liverpool before the 30th of September will be deemed eligible.

### How to Contact You

Name: .....

Membership Number: .....

Address: .....

Post your completed entry to:

August Competition,  
PO Box 3,  
Liverpool,  
L21 8PY.

### Choose Your Prize

Please indicate below which prize you would like, if you were to win. Game collection for Apple IIs, Disk Access for IIGS or Color MacCheese for the Mac.

- ☐ Game collection  
☐ Disk Access  
☐ Color MacCheese

## Apple2000 prize competition



# Apple-pie Order

## A trivial quiz with a few apples\* thrown

1. What river flows between Minneapolis and St. Paul?
2. What American comedian asked "What contemptible scoundrel stole the cork from my lunch?"?
3. Who split the apple in Switzerland?
4. Who baptised Christ?
5. What was the kraken in John Wyndham's "The Kraken Wakes"?
6. Who was hit by an apple and said "g"?
7. What is the date when the sun is directly over the Tropic of Capricorn?
8. Where are wineglasses placed at a table setting?
9. Who won the Golden Apple awarded by Paris?
10. What is Great Britain's longest river?
11. What relationship are James Arness and Peter Graves?
12. Complete the quotation:-  
When Eve upon the first of Men  
The apple press'd with specious cant,  
Oh! what a thousand pities then  
That .....
13. What conflict was known as the war to end all wars?
14. What is Ray Bradbury's Illustrated Man illustrated with?
15. What is fermented apple juice called?
16. What's a.m. an abbreviation for as in 10 a.m.?
17. Who was England's first World Formula 1 motor racing champion?
18. How many apples are on this page?

Prize will be awarded to the entry with the most correct answers  
Photo-copied entries are quite acceptable, so there is no need to spoil your magazine

# AppleXtras

## /XTRAS.GS.NO.10/

□ Many of these files have been shrunk using ShrinkIt.

## /XTRAS.P8.NO.10/

-PATCH.BXY	BIN	49	16-JUL-91
-POWERPRINT.SDK	LIB	123	7-DEC-89
-BLKWORK.SHK	LIB	54	16-JUL-91
-MORSE.BXY	BIN	6	16-JUL-91
-FILCOMP.SHK	LIB	19	16-JUL-91
-SFGET.SHK	LIB	16	16-JUL-91

## /XTRAS.GS.NO.10/

=DESK.ACCE	DIR	1	16-JUL-91
=MOUSETXT.SHK	LIB	4	16-JUL-91
=TWGSCDEV.SHK	LIB	27	16-JUL-91
=AUTOME.BXY	\$00	9	28-JUN-91
=MNUCLR.BXY	LIB	26	15-JUN-91
=DSKWTCH.SHK	LIB	78	9-JUN-91
=EYES.BXY	LIB	11	4-JUN-91
=BET1A4.BXY	LIB	64	04-MAY-91
=LITHIUM.SHK	LIB	17	19-MAR-91
=LNCHPD.BXY	LIB	35	29-MAY-91
=REPRTR.BXY	LIB	30	29-MAY-91
-PROGRAMS	DIR	1	16-JUL-91
=WRDWRK.BXY	LIB	47	29-MAY-91
=LPR.BXY	LIB	55	15-JUN-91
=FREE.BXY	LIB	60	15-JUN-91
=ICNPIX.BXY	LIB	718	20-JUN-91
=VIRUSRX.SHK	LIB	59	16-JUL-91
=REDRAW.BXY	LIB	4	26-JUN-91
=RESICALC.SHK	LIB	55	9-MAR-90
-GAMES	DIR	1	16-JUL-91
=BEYOND.BXY	LIB	52	16-JUL-91
=HRTSGS.BXY	LIB	124	4-JUN-91

## /XTRAS.P8.NO.10/

□ All files on this disk have been shrunk using ShrinkIt.

### PATCH.BXY

The official AppleWorks 3.0 patcher from Beagle Bros. This is version 1.61 and cures all the known bugs in AppleWorks 3.0.

### POWERPRINT.SDK

Unshrink to a 5.25 disk. These are the famous PowerPrint utilities from Beagle Bros. They have now been put into the Public Domain. They will allow you to prepare and use custom fonts for your dot matrix printers. Many different printers supported.

### BLKWORK.SHK

A comprehensive and versatile ProDOS disk block editor or zipper. Use with care on copies only!

### MORSE.BXY

This is a small program to test and teach you the Morse code. You must unshrink and transfer to a DOS 3.3 disk and then run under Integer Basic.

### FILCOMP.SHK

A program which compares two files to see if they are identical. This could be useful for Bulletin Board users to see if you already have that new file or not!

### SFGET.SHK

Adds a command to Basic that is much like the SFGet toolbox command on the IIGs. This will allow you to select files with ease from a Basic program.

### Desk Accessory Directory

#### MOUSETEXT.SHK

A useful CDA for programmers which displays all the available MouseText characters with their Hex equivalents.

#### TWGSCDEV.SHK

A CDEV that displays in the desktop Control Panel. Allows you to change settings of your TransWarp accelerator directly from the desktop.

#### AUTOME.BXY

Changes the way menus pull down for a simpler action. This is an Init file that must be placed in the SYSTEM.SETUP folder.

#### MNUCLR.BXY

Tired of those black and white menus? Put colour in your life with this desk accessory.

#### DSKWTCH.SHK

A CDA that adds comprehensive disk utilities to the IIGs. Catalog, Format, Read file etc. Do not use with AppleShare active.

#### EYES.BXY

Some of you may have seen this on the Macintosh, now we have it on the IIGs. Those eyes will follow your cursor wherever it goes ...

#### BET1A4.BXY

Version 1.0a4 of the Big Edit Thing word processing desk accessory. This a bug fixed version.

#### LITHIUM.SHK

Saves and restores snapshots of your battery Ram. This is useful if you like to have different settings for different programs or to restore master settings after crashes!

#### LNCHPD.BXY

A program launcher which configures TransWarp for specific settings when launching programs. Mainly useful for games which need to be run at fast or slow speed.

#### REPRTR.BXY

Another control panel CDEV to report on the current state of your TransWarp accelerator. This one allows you to change speed and to switch on the Ram Cache.

### Programs Directory

#### WRDWRK.BXY

A powerful and comprehensive word processor. Fully supports font styles and colours. Full search and replace facilities and much much more.

#### LPR.BXY

For those working in the APW or ProSel shell environment, these are a set of utilities to help you use your printer more usefully.

#### FREE.BXY

Freedom is a HyperCard GS resource utility. It allows you to import and export resources from HyperCard stacks.

#### ICNPIX.BXY

A set of clip art pictures and utilities to allow you to build your own icons.

#### VIRUSRX.SHK

The latest version of the virus protection tool.

#### REDRAW.BXY

Redraws the desktop when it has been corrupted. Useful when the trashcan disappears.

#### RESICALC.SHK

Calculates resistor values from the colour bands.

### Games Directory

#### BEYOND.BXY

An excellent Tetris like game in a CDA for the IIGs.

#### HRTSGS.BXY

A game of Hearts for those cardsharps amongst you!



# CNC Trainer

## Peter Davis reviews a specialist vertical mill simulation program

Have you ever been in a modern workshop and seen a single operator supervising maybe 2 or 3 milling machines? Most of the time he appears to be an onlooker while the machines cut and churn their way through the work in cloud of vapour and white cutting oil. Then occasionally he picks up the finished part, brushes and blows away the swarf, and sticks another blank piece in the holding vice. He does not wind any handles, he seems to be controlling the mill using a dazzling array of push buttons on the front of a box clamped on the side of the mill. These machines have Computer Numerical Control and the operator knows enough to visualise a very repetitive sequence of machining operations and has prepared a program to create a component from drawings he was given with the job. Other machines programmed in this way can be drills, planers, lathes, benders, and nibblers.

I have very limited knowledge of the latest machine tools other than having seen them in use, and being aware that old style information included in machine drawings has to be supplemented to a considerable extent if the operator is not to be overloaded with extra work in preparing his machine tool program.

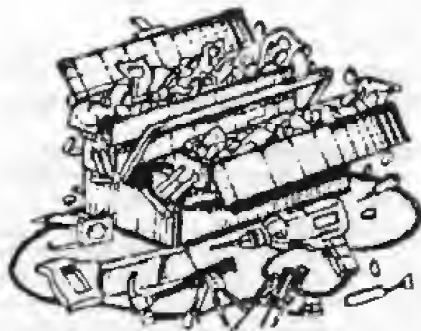
### Automatic machine tools

A revolution took place within the last 20 years or so allowing for automatic operation of cutting sequences. The development depended on measurement in 3 dimensions of the cutting tool's position relative to the work. This is no trivial matter bearing mind that position has to be known to better than 0.0001", which is well beyond the ability of the traversing screws built into these machines. To make a long story short, the breakthrough was achieved at NPL who got independent measurement of slide position by counting the flicker of Moiré fringes (superimposed diffraction gratings) and the interpretation of digital encoders which were incorporated within the traverses and slides of the machine tool.

### Integral programmed computers

Having a suitably programmed small

computer on board the machine tool, it is only necessary allow the cutting tool to acquire a datum point on the work (the operator allows the tool to closely approach the work at a chosen spot). From then on the machine will perform its series of operations, gradually shaving down the work until the required shape is achieved.



### The CNC package

The CNC TRAINER package is concerned with simulating the programming of vertical mills. It is written to correspond with the language ANSI G-CODE. (American National Standards Institute) There are extensions relating to other specific manufacturers languages namely BRIDGEPORT DIVER and DYNA POST processor.

The program will operate on a 128k or 64k Apple II E/c/GS. There is an excellent Appleworks like Editor to enter code. A compiler checks the code you have entered, before saving the compiled version. Having defined the size of the work piece, the program uses graphics to display the blank component, gives you manual control of the approach of the tool to a datum point on the work, graphically displays the path of the tool while simulating the cutting process. There are facilities to download G-Code (or other) from a machine, alternately a program written on an Apple II may sent to a machine or tape punch via the Super Serial Card and RS 232 link (the necessary communications software is contained within the BRIDGEPORT

and DYNA POST packages, it appears to function but was not tested).

### Operating language

The programs are written in Basic using MicroDot System, some have been compiled using the Beagle Compiler. Hard copy of the graphical output requires Beagles Triple Dump, which is not supplied. Hard disk operation has been catered for. Setting up (installing) the program requires experience and the preparation of several intermediate disks which in the end cost me a mild amount of time and confusion due to not following a manual addendum. The program itself is Menu Driven and easy to use. The manuals are messy but comprehensive. A very good separate reference gives actual examples of simple machining operations with drawings set alongside the corresponding G-Code.

### Writing applications

I tried programming, compiling and simulating several machining operations with no difficulty. Errors in compiling are reported comprehensively, a really neat feature creates an Error File which can be examined later in the Text Editor. In simulation mode, the double high resolution graphics is quite adequate and very well

designed to give realistic dynamic views in operation. Some of these operations are slow, but progress is continuously reported on screen.

### Conclusions

This is a specialized area about which I previously knew next to nothing. Very few people will need this software, but for those that do, it gives every appearance of doing a very competent job. This must be a good example of how to design a training aid.

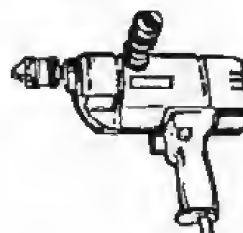
### Published by:

Kitchen Sink Software Inc  
903 Knebworth Ct.  
Westerville  
Ohio 43081  
USA

Telephone: 010/614/891/2111

CNC Trainer	£39.95
Bidgeport Driver	£24.95
Dyna Post processor	£24.95
available from MGA SoftCat.	

Peter Davis



# Disk Zaps and all that (part 6)

## Conducting ProDOS with the MLI Ewen Wannop continues with his series on disk structure

### First encounters

So far in this series I have been talking about what can be done with disc zap programs such as Disk Manager, directly to the disc. I am going to digress a bit this time into discussing the MLI or Machine Language Interface used by ProDOS. The MLI handles all command instructions and can only be handled from a program. It is analogous to the RWTS and File Manager of DOS 3.3 combined. Unlike DOS, ProDOS has no internal commands that can be handled from a program or keyboard. All commands must be interpreted and passed to ProDOS by an external program through the MLI. The BASIC.SYSTEM file included on most ProDOS discs, when run, will in fact echo most of the commands you have grown used to from DOS. It is the modified Basic that is actually executing these commands, not ProDOS itself.

All entry to ProDOS is taken through the MLI at \$BF00, and associated with this is a Control Block which you must set up before you enter the MLI. ProDOS is a more complex system than DOS, but once mastered, it is very easy to actually use. File handling at machine code level is made very easy, and you can quickly set up custom disc handling from within your own programs. You will need to add a small routine into your program however, and set aside an 18 byte block for passing control parameters. This routine does all the hard work, and interfaces you to ProDOS. In machine code it would look like Figure 1.

Figure 1.

SYSCALL	JSR	\$BF00	the MLI
	DB	CMNDNUM	the actual command number to be executed
	DW	CMDLIST	a two byte pointer to the 18 byte control block
	BNE	ERROR	
	RTS		exit from routine
ERROR	NOP		error handling routine, the AOC holds the ProDOS error code
CMDLIST	DS	18	

This could equally well be set up from a Basic program and then CALLED.

There are a great number of commands available and each uses the control block in a different way. Each has a command number associated with it, which is entered into the coding following the JSR call to the MLI. It would be impossible to deal with all of these commands in this article. I can only give an illustration of one or two to show how they work. I hope this will help you understand how to interface with ProDOS, and you will then be able to follow manuals such as the ProDOS Technical Manual published by Apple.

### Ask a policeman

ProDOS files can be date/time stamped, and ProDOS itself can cope with certain clock cards if they are fitted. I suspect only a few have actually got clock cards fitted into their machines. However we can all set the time into ProDOS for date/time stamping, and we can all read off the time that is currently in the system if a clock card is fitted.

I explained how the four time bytes were constructed in my last article. Within ProDOS three bytes are positioned at \$BF90-\$BF93. A direct POKE to these addresses is all that is needed to tell ProDOS the time. Files written after that point will be date/time stamped. Do this from Basic or machine code.

To read the time, simply PEEK the same addresses. However, the time is not necessarily updated by ProDOS as it goes along. To read the current time

you will need to do a call to the MLI, if no clock card is present these bytes will be unchanged.

The GET TIME command to ProDOS does not use the control block and so is slightly different from the norm. You only need to put the command number \$82 into the CMNDNUM byte and do a JSR to SYSCALL. No DW follows for the control block, so there should be an RTS at this point. No error can be generated by this call. The four bytes at \$BF90-\$BF93 will be updated to show the new time. This should be done before each filing command to ensure that the clock is up to date.

### Blocking the System

ProDOS has the equivalent of the DOS RWTS routine in two MLI commands, namely READ BLOCK and WRITE BLOCK. These will handle a block of two sectors back and forth to the disc.

Most ProDOS MLI commands identify the target file either by the pathname of the file, or the REFNUM allocated when the file was OPENed. The BLOCK commands deliberately do not use either of these approaches, you must use the UNIT\_NUM of the device you wish to access, this allows true disc zapping to occur. The UNIT\_NUM quite simply is a number which tells ProDOS the Slot and Drive of the active device. Only the top four bits of the unit\_num byte are valid, bits 4-6 are the slot number, and bit 7 is off for drive 1 and on for drive 2.

Using the routine I mentioned earlier, we must first poke \$80 for read or \$81 for write into CMNDNUM. Next we must set up the control block as follows:

CMDLIST	+0 =	3	parameter count to follow:
	+1		unit_num of device to look at
	+2		low byte of a 512 byte data buffer
	+3		high byte the buffer
	+4		low byte of block number on the volume you want
	+5		high byte of block number

The data buffer is a 512 byte area of memory for the required block to be written to or from. Now do a JSR SYSCALL to do the actual work. Read or alter at will the buffer, and then write back to disc.

### Filing made easy

Files are handled much the same way. There are various steps to handling a file. If it already exists, you would probably first wish to do a GET INFO to see what kind of the file it is. Next you would need to OPEN it, then you would READ it in chunks till done, then you would finally CLOSE it up.

To write a file, you must first CREATE the file, then it must be OPENed

WRITEten and then CLOSEd up to finish off.

This handles most file handling and likely events. As I mentioned previously, Directories can be opened like files. To create a Catalog in your program, you must OPEN the directory, READ it and construct the Catalog yourself, finally CLOSE it up again. This explains why most programs have Catalogs that differ markedly from each other. It depends on the individual preference of the software writer.

The full list of commands available to interface with the MLI are shown in Figure 2.

#### The last word

ProDOS is assured of a long future. The current ProDOS has been updated to cope with the GS, and is now renamed ProDOS 8. A new ProDOS has been created for the 16 bit mode of the GS, namely ProDOS 16. Current files in ProDOS are compatible with the GS, and we are assured if they run on a /e they should run on the GS as well.

I have neglected Pascal and CPM for some time, but will return to them in future articles.

Ewen Wannop

Figure 2

NAME	CMNDNUM	
ALLOC_INTERRUPT	\$40	allocate an interrupt routine
DEALLOC_INTERRUPT	\$41	de-allocate the routine
QUIT	\$65	standard exit to SYSTEM file
READ_BLOCK	\$80	read block
WRITE_BLOCK	\$81	write block
GET_TIME	\$82	get the time from clock device
CREATE	\$C0	create a file
DESTROY	\$C1	destroy or delete a file
RENAME	\$C2	rename a file
SET_FILE_INFO	\$C3	get info on the file
GET_FILE_INFO	\$C4	change the info on a file
ONLINE	\$C5	find out active devices
SET_PREFIX	\$C8	change the default prefix
GET_PREFIX	\$C7	find out the default prefix
OPEN	\$C8	open a file for read or write
NEWLINE	\$C9	sets read to stop on a preset character
READ	\$CA	read a chunk
WRITE	\$CB	write a chunk
CLOSE	\$CC	close up files
FLUSH	\$CD	flush out buffers to disc
SET_MARK	\$CE	set position in a file
GET_MARK	\$CF	find out position in a file
SET_EOF	\$D0	set new length of file
GET_EOF	\$D1	find length of file
SET_BUF	\$D2	set new ProDOS buffer
GET_BUF	\$D3	find current ProDOS buffer

#### Postscript:

Just as SOS spawned ProDOS, ProDOS has led to ProDOS 16 and then GS/OS for the IIGs.

ProDOS is designed to be independent of the size of device that is used. This has meant we now see a plethora of devices from 5.25 to 3.5 drives,

megabyte RAM disks and hard drives in our computers.

GS/OS also now has files having resource forks similar to the Mac.

## HARD-TO-FIND, UNIQUE PRODUCTS FOR APPLE II ENTHUSIASTS

from the most reputable fax/phone/mail order company serving the Apple II community

### IIGs Batteries

When your IIGs loses track of time and can't remember your control panel settings, it means your battery is dead. Since the IIGs battery is soldered to the motherboard, some dealers actually want you to pay for a motherboard exchange to fix the problem. Instead, just clip off your old battery and slide on one of these new replacements. No soldering necessary. Kit includes fully compatible lithium battery and complete installation instructions.

NO-001 Slide-On Battery for IIGs \$14.95

### Cheap 3.5 drives

For months you've been asking us to carry inexpensive 3.5 drives. For months what you've wanted simply wasn't available in a drive we could support. But now AMR has produced an \$80K 3.5 drive that's just like an Apple 3.5 at a fraction of Apple's \$429 price. Plug in IIGs or IIoPlus disk classmate. Also works on a IIe with AMR's disk controller or on your Macintosh.

AM-001 AMR 3.5 drive \$199.00  
AM-002 AMR 3.5 controller for IIGs \$59.00

### Prosel 8 and 16

Prosel is a comprehensive disk utility package. Prosel 8 works in the ProDOS 8 environment, Prosel 16 (includes Prosel 8) in the GS/OS environment of the Apple IIGs. Includes file and disk copy and backup utilities, program selector, scheduler, and much more.

GB-001 Prosel 8 \$49.00  
GB-002 Prosel 16 \$69.00

### Stack Support

Stacks have arrived in the Apple II Kingdom and we're ready to offer charter subscriptions to the first Apple II publication called hypermedia. It's published 6 times a year as a set of stacks and distributed on 3.5 disks. *Stack-Central* includes the latest information on Apple II hypermedia developments, authoring tips, clip art and sounds, and samples of the best public domain and shareware stacks we can find. Requires HyperStudio.

SC-1 *Stack-Central*, six 3.5 disks \$42.00

### HyperStudio

*HyperStudio* is the first program to take full advantage of the sound and graphics of the Apple IIGs. Its HyperCard-like, for those of you familiar with the Macintosh, but cards can use the full color capabilities of the IIGs and no scripting language is required. You can create stacks and add sounds by point and click.

RW-005 *HyperStudio* \$129.00  
SCWH-1 Special HyperStudio/Stack-Central \$139.00

### Network Connectors

These are the connectors you need to create an AppleTalk network. Not only do they cost less than Apple's connectors, these work with inexpensive telephone wire (not supplied) rather than Apple's expensive, special cables. You need one connector for each computer and printer on the network.

OE-001 *ModuNet 8-pin* \$34.95  
OE-002 *ModuNet 9-pin* \$34.95

### News and solutions

Are you tired of Apple Computer's incessant message that only the Macintosh is a serious computer? Thousands of people like you subscribe to our monthly Apple II newsletter, *A2-Central*. It's a small, personalized publication concerned only with the exchange of meaningful information about the Apple II.

Just 8 pages thin, each issue is professionally typeset and packed tight with answers to the questions Apple II users around the world are asking. It's punched for a three-ring binder, indexed each February, and is considered by many to be the single most important information resource in the Apple II world.

A 3.5 disk subscription is also available, which includes both a paper newsletter and the full text of that issue in a disk file for full-text searches. The remainder of the disk is filled with programs from our subscribers, from our library on GENie, tech notes, system disk updates, and other hot stuff.

A2-N1 *A2-Central*, paper, 1 yr \$28.00  
A2-D1 *A2-Central*, 3.5 disk, 1 yr \$84.00

### Apple II books

We carry in stock virtually every book in print that's about the Apple II. From Addison-Wesley's *Apple Technical Library* to *Sams Computerbooks*, we have them all. Write for our free catalog or call and ask about the book you're interested in. We also have in stock the accompanying disks for many books.

### Full Set Specials

You can get every issue of *A2-Central* we've ever published—five years worth of Apple II tips, tricks, and solutions to your problems—for just \$59. Paper back issues are bound and indexed. Back issues on disk are for full-text searches using software such as *FastData Pro* and include six 3.5 disks—well over 4 megabytes of information.

FS-N Indexed back issues, paper \$39.00  
FS-D Back issue text on 3.5 disks \$39.00  
FD-001 *FastData Pro*, for searches \$49.00

**A2-Central** PO Box 11250, Overland Park, KS 66207 voice: 913-469-6502

U.S.A. fax: 913-469-6507

item #	qty	price

☐ Send me your full catalog FREE!

name \_\_\_\_\_

adr \_\_\_\_\_

☐ Visa ☐ MasterCard

card number \_\_\_\_\_ expiration date \_\_\_\_/\_\_\_\_/\_\_\_\_

Prices are in U.S. dollars. All prices include shipping; airmail for A2-Central and Stack-Central, surface shipping otherwise. Request airmail and we'll add the postage to what we charge you.

**No Risk Guarantee!** If you aren't completely satisfied with your purchase, return the merchandise in its original package and we will refund your money in full. We back our products! Our 45-day unconditional guarantee means you take no risk on any product you buy from us.

**A2-Central**



# Publish-It! 3

A desktop review by Dave Ferris puts desktop publishing on the Apple II through its paces

## Introduction

Some time ago I read a review, in Apple2000 magazine, of Publish-It! for the Mac, and a very fine program it seemed too. For those of us with more modest machines and even more modest financial resources, Timeworks also have a version which will run on an Apple II (e or GS).

## The Package

I originally purchased version 1. It came on 4 double sided 5.25" and 2 x 3.5" floppies, with a 230 page manual and quick reference card in a sturdy slip case. The manual has grown a little since then as I upgraded first to version 2 and then to version 3. Each upgrade brought a sheaf of replacement pages and a supplement as well as a new quick reference card.

The program requires an Apple II e or GS with at least 128k of memory and a single 5.25" drive plus either a mouse or joystick. Practically you'd need 400k of memory if you wanted to load all the overlays and fonts, and that's before you start on your document! At least one 3.5" drive is better and a Ram disk or hard disk will speed things up. The alternatives to mouse control aren't really very easy to use.

The program supports a large number of printer interfaces and most

popular printers, including: Apple ImageWriter, Epson MX/FX/RX/LX, Gemini 10X/15X, Okidata 192/193/292/293 and all compatible printers.

## History

Version 1 was, on reflection, awfully limited, especially compared with version 3. There was no allowance for extended memory on a GS, overlays were loaded every time you switched function, and fonts had to be read each time, it was all very time-consuming. Not only that, but typing text in directly had to be done blind with the page at an unreadable size-to-fit, or if at full size, you ran the risk of losing several characters out of the middle of words as the screen shifted to keep up with the cursor. It was more effective to type the text into a Word Processor such as AppleWorks and then import that and use Publish-It! as a page layout program only.

Version 2 was a great step forward, recognising the II/GS memory card, allowing you to load all overlays at startup, and keeping fonts in memory after they are first accessed. Other major steps forward included transparent text boxes, an on-screen preview mode, and support for PostScript Laser printing, which had to be purchased as a separate package with

## PublishIt!v3

Provides up to 24 font/point size variations in any one document, up to 5 of the 7 families may be replaced. These can be from extra font discs, or Mac fonts may also be used, though they are taller due to the aspect ratio.

All fonts may be :-

**Standard, Bold** subscript  
*italic, Underlined* superscript

**Outline, Shadow**

or combinations, not forgetting colour

Fig 1

## PublishIt!v3

Provides up to 24 font/point size variations

in any one document, up to 5 of the 7 families may be replaced. These can be from extra font discs, or Mac fonts may also be used, though they are taller due to the aspect ratio.

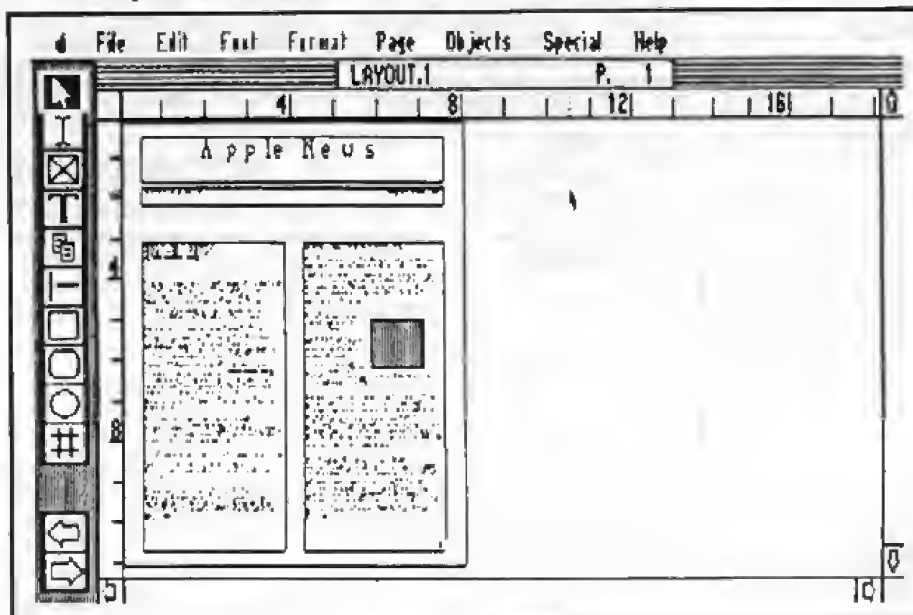
All fonts may be :-

**Standard, Bold** subscript  
*italic, Underlined* superscript

**Outline, Shadow**

or combinations, not forgetting colour

Fig 2



## PublishIt!v3

Provides up to 24 font/point size variations

in any one document, up to 5 of the 7 families may be replaced. These can be from extra font discs, or Mac fonts may also be used, though they are taller due to the aspect ratio.

All fonts may be :-

**Standard, Bold** subscript  
*italic, Underlined* superscript

**Outline, Shadow**

or combinations, not forgetting colour

Fig 3

version 1.

Version 3 again refined the program adding the ability to import SHR graphics, colour printing and the use of

Encapsulated PostScript within a text frame. The type-ahead now allows me to use the program as a word processor.

### The Program

Publish-It! provides all the basic DTP elements, and more.

- Documents can be multi-page, up to 128 articles of up to 64K each, with preset guides to help you align text and graphics frames. Several sample documents are included with the program disc and an extra disc (Design Ideas) can be purchased with more sample layouts and designs.
- Pages can be viewed at full-size (a portion of a page), half-size (bigger portion), double-size (smaller portion) or size-to-fit (displays the whole page - but don't expect to be able to read anything but headlines). On screen rulers show you exactly where you are on the page.
- Text frames can be linked to allow text to flow from column to column and across pages.
- Publish-It! 3 comes with 7 font families at various point sizes as standard. All except Deerfield.12 and Desplatines.12 may be replaced by other fonts up to a limit of 6 extra font families and 24 family/point size combinations. All fonts can be used in a variety of styles. When using a postscript laser printer, you can use the on-board fonts or you can download the bitmapped fonts for the fancier styles. Figs 1, 2 & 3 show fonts printed on an ImageWriter and LaserWriter with and without font substitution.

- Page numbers may be put anywhere on a page and in any of the available fonts and styles.
- Text can be entered manually using the built-in Word Processor to cut & paste, search & replace. Or, text can be imported from any TXT file, AppleWorks WP or Bank Street Writer.
- There are controls for justification, margins and indenting which can be applied to page or to individual portions of text. Tab stops may be set and tab leader characters defined for things like table of contents.  
i.e. Table of Contents .....1  
Bibliography .....11etc.
- Text can be made to flow around overlapping text or graphics frames, or not, if requested. Text frames may be linked on one or more pages so text will flow throughout an article, with automatic word wrap and soft hyphenation.
- Kerning - horizontal shifting of characters for overstrike and diphthongs (and pound signs as f\_ combined in one character space).
- Graphics can be imported from DOS3.3 (HGR, Newsroom Photos & Print Shop Graphics) or ProDOS (HGR, DHR, SHR plus Print Shop GS Graphics). The ProDOS types can be imported as colour images and printed out as such.
- The package includes an art disc which contains over 200 graphics on a number of themes. There are other art discs available, with illustrations on other subjects, such as People, Places & Things.
- There are some drawing tools for boxes, rounded boxes, circles or ellipses, plus horizontal and vertical lines. The shapes may be filled with gray-scales, predefined or user

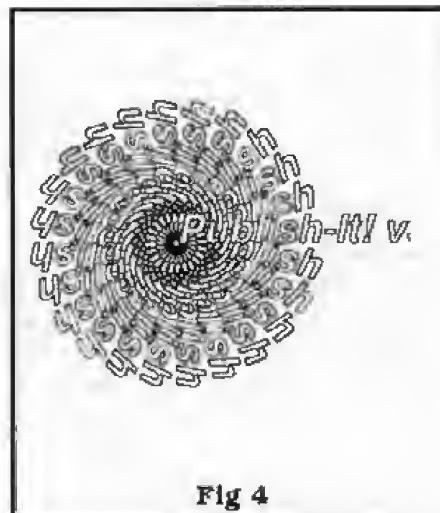


Fig 4

```
%!PS-Adobe-2.0 EPSF-1.2
%%BoundingBox: 0 0 300 360
%%Creator: Dave Ferris
%%Title: Publish-It! Pattern
%%CreationDate: 14Apr1991
%%DocumentFonts: Helvetica-
BoldOblique
%%EndComments
/Helvetica-BoldOblique
findfont
30 scalefont setfont
125 180 translate
%- Circle of text p98 of
Cookbook
/CircleofText
{15 15 345
  {
    gsave
    rotate 0 0 moveto
    (Publish-It! v3) true
    charpath stroke
    grestore
  }for
}def
%-Program
.5 setlinewidth
CircleofText
0 0 moveto
(Publish-It! v3) true
charpath
gsave 1 setgray fill grestore
stroke
%-End
%%
```

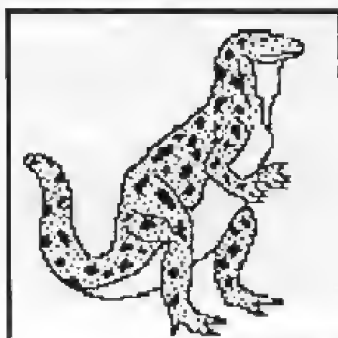
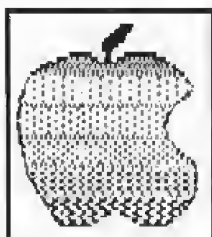
Fig 5

designed patterns.

- On a suitable colour printer (i.e. ImageWriter) text can be assigned a colour for printing, not shown on screen but indicated by a line over the top.
- Editing commands are also available for objects, which may be cut, copied and pasted. They may also be grouped together for handling multiple objects which must stay together. Object commands allow for aligning objects, setting which ones go in front of others, whether they have a frame, and even if they shouldn't be printed.
- Version 3 adds Encapsulated PostScript support to Laser printing. When using a dot-matrix printer



Pictures imported from HGR, Print Shop & Newsroom



you are restricted to horizontal text going from left to right. With EPS on a LaserWriter you can put it wherever and however you like (see Figs 4 & 5). Some fancy effects can be achieved with just a few lines of code (and a bit of effort to understand PostScript programming).

### Documentation

As mentioned above the program comes with a large manual that is well written and full of examples and everything you need to know to get started quickly. Added to this a useful on-screen Help facility and the quick-reference card. However, the program is intuitively easy to use, you only need to resort to the manual to use some of the more esoteric features.

### Conclusion

Publish-It! is easy to use, adhering to the standard Apple style GUI (Graphical User Interface) on the DHR screen (//GS users must select 'Monochrome' display to avoid coloured fringes). I have been using it in one version or another for about two years now and I like it. I use it, amongst other things, to do sample layouts for reviews like this one.

The program claims to be WYSIWYG, but is in fact WYSIAWYG (what you see is almost what you get), since screen fonts don't correlate exactly with the printed ones. For this reason a 'Preview' command is provided. This is stretched vertically due to the screen aspect ratio being different to the printer, but it allows you to see the actual fonts and how all the page elements go together.

There are a few features that I still

find annoying:-

- Dismounting and mounting fonts is tedious (one family point-size at a time). I have overcome this by writing a startup program that installs one of several versions of the file DTP.PARM (which defines the alternate fonts and user defined fill patterns).
- Fonts have to be in the volume directory of any disc, since DTP.PARM doesn't allow for full pathnames.
- There is no access to the extended characters (such as pound sign) even when using a Macintosh font that has them defined.
- Each page has a memory limit, I have run into the situation where with a page full of 9 point text, I was told there was insufficient memory, even though I actually had approximately 600K spare for the whole document.
- Vertical Kerning would be nice.

None of the above problems really causes me grief (except perhaps the memory limit), and I find the program performs as well or better than expected. I have had access to Framemaker (a PageMaker look-alike for Sun workstations) and find that that performs no better than Publish-It! 3.

The ease of upgrading was a pleasure, going from version 2 to 3, I phoned Timeworks' Update line in the States, quoted my registration number, my credit card number and told them what I wanted. A few days later I had it, and at a price that made up for the cost of the transatlantic phone call.

Dave Ferris

info

Product : Publish-It! 3

Publisher : Timeworks Inc.

Available from :

MGA SoftCat

41 Cinque Port Street

Rye

East Sussex TN31 7AD

0797-226601

Price : £129.95 WYSIWYP

Value : ★★★★★

Performance : ★★★★★

Documentation : ★★★★★

## Ralph R. Russo Director, Apple II Product Line

Ralph Russo, Director, Apple II Product Line, joined Apple Computer, Inc. in 1984 as a member of the Macintosh Team. In his current position, he is responsible for the Apple II product line including product engineering, marketing, and customer support functions.

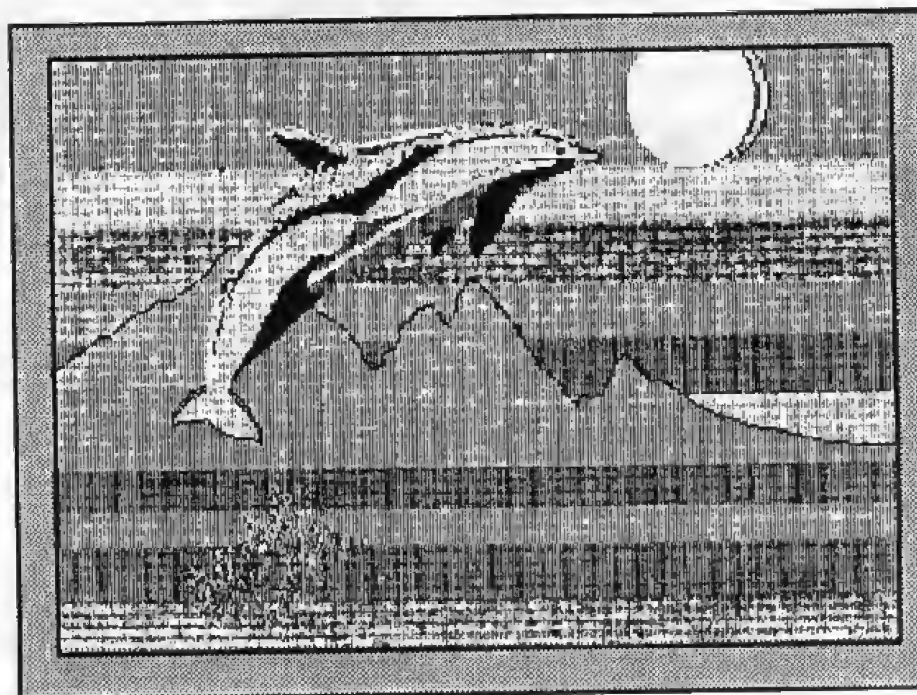
During his career at Apple, Russo has held several senior management posts including vice president of Worldwide Operations with responsibility for manufacturing, service, procurement and customer support. Prior to that, he was director of Worldwide Materials. In both of these positions, Russo played an integral role in the formation of Apple's business strategy.

Before joining Apple, Russo held management positions with Digital Equipment Corporation in both Massachusetts and Colorado.

In addition to his responsibilities at Apple, Russo serves on the Board of Trustees for the California College of Pediatric Medicine in San Francisco. He is also a member of the Manufacturing Advisory Board for the Kellogg School of Northwestern University. Other activities include coaching Little League baseball and youth basketball programs.

Russo has a bachelor's degree in History and a Master's degree in Business Administration. He also holds a certificate from Harvard's Executive Management Program.

□ Biography last revised Rev. 5/10/91



SHR Imported picture



# Disk Access™ NDA

## Dave Ferris looks at this useful little utility from Seven Hills Software

### Introduction

For Apple //GS users the Finder is an extremely clever and easy to use program for handling files and launching applications, however it is big, uses a lot of disk space, and is sometimes far more than you actually need. Finally, once you have launched your application, you have lost all the file handling capabilities until you exit back to the Finder or unless the application has a comprehensive set of disk utilities built into it.

Disk Access from Seven Hills gives you the ability to do everything you need from a New DeskAccessory, without disrupting whatever you're doing. What's more, since the only thing you need the Finder for then is to launch

programs, they include a free program launcher (Out to Launch!) with it. The Finder is now completely redundant. Of course, you can forget launchers completely and create a turnkey disk, such as one I did for DeLuxePaint II.

### The Program

Disk Access requires GS/OS 5 or later, and needs 128K of free memory available, after any application is loaded. The program itself takes 46K and can run in as little as 64K. However functions such as copy require more memory for disk buffers.

Both Disk Access and Out to Launch come on a GS/OS 5.0.7 disk that starts up Out to Launch. The only application that you should launch from here

is the Apple Installer program. Two install scripts are presented. The first takes care of not only installing Disk Access into System/Desk.Accs, but also copies an extra Ftype file to Icons. The second copies Out to Launch to System/Start!!! Warning - this should not be done on a turnkey disk without first moving or renaming Start, for later addition to the launch list.

The disk is accompanied by a manual of approximately 60 printed pages, plus a four page quick reference card. At first I found this a little daunting. Who needs a DeskAccessory that needs so much documentation, it must be difficult to use. Fortunately, this is not the case, although there are some 'Power User' features that need the quick reference card, at least until you have got the hang of them.

### Description

Table 1 shows the set of Disk Access facilities and how they compare with the Finder (See Figure 1).

Most of the commands can be invoked in several different ways, e.g. click on a button, use OA-key or a single key in some cases. Many commands have further 'Power User' functions that can be invoked through the Option key, to speed things up. For instance a function can be cancelled by clicking on a Cancel button or typing OA-Period or just Esc. Using Option-Esc or holding down Option while clicking on the button will cancel a whole set of activities, such as multiple deletes or getting info on a list of files.

I tried a number of the functions on both Disk Access and Finder to compare their speed. There is very little in it, though Disk Access comes out a little slower due to time taken up redrawing the screen, before it starts copying, deleting etc. One thing I particularly liked, when doing a single drive disk copy, Disk Access ejects the disk for you each time you need to change over. Why can't Finder do that?

Seven Hills include in their manual a short list of known problems, these include anomalies if you try to run Disk Access with the Finder and problems with switching from 320 to 640 mode (Disk Access always runs in 640 mode). This effects Deluxe Paint II by leaving the color palette in the Disk Access window - no problem, it just gets drawn over - and Beagle Draw which loses its non-standard font. There is also a problem with restricted memory that effects PaintWorks Gold and a patch that can overcome it if you have more than 1.25MBytes of memory.

To those problems I can add a couple that I ran into. First, when I tried to move a file to the same folder the window was flooded with garbage characters. This was subsequently redrawn and everything was OK and I was unable to repeat it by performing the same operation. Secondly, I copied my boot disk to a new disk. Disk

Finder Menu	Facility	Disk Access	Comments
File	New Folder Open Print  Close Close All Duplicate Put Away Validate	New Folder Open Show File  Close N/A Copy N/A Verify	then print display or save as text file for later ) Use Option to close to any level in pathname
Edit	Select All	OA-A	or select multiple files by shift-click as Finder
View	by Icon small Icon Name Date Size Kind	N/A N/A Name Modified Size Type	) Selected from preferences ) dialog, allows forward or reverse sorting ) or none at all.
Disc	Initialise Erase Verify Eject N/A	Initialise Erase Verify Eject Check Drives	) With Option to change size or interleave  This function required by Disk Access as it doesn't handle new disk insertion
Special	Clean Up Empty Trash  Preferences Icon Info Shut Down	N/A N/A  Preferences Item Info N/A	Deletes normally need confirmation Temporary / Permanent No directory space summary Program launching and shut available through Out to Launch.

Table 1

Access makes an exact copy, whereas Finder won't allow two volumes with the same name. So, when I came to delete the copy, it wouldn't let me because it said there were files still open. Specifically it was talking about \*/System/Start (A.K.A. Out To Launch). I had to rename the disk before I could reinitialise it.

The free program launcher included is a nice touch, but launching Deluxe Paint II with it from a GS/OS 5.0.2 disk didn't work. After inserting the Key Disk it just hung. I suspect this is a variation of the PaintWorks Gold memory problem, which a smaller Ram disk might have solved. Making Deluxe Paint II the Start program solved it anyway.

### Conclusion

In spite of a couple of problems, this is a very good, powerful. It allows you to do everything that you would previously have needed to go back to the Finder for. It is almost too complex for a desk accessory, since the last thing I need is a load of manuals or even quick reference cards next to my computer for each NDA that I might want to use. Desk Accessories should be intuitive to use or have on-screen help. In fact Disk Access is easy to use and the 'Power User' features are intuitively easy once you know that they are there. Unfortunately, the program I would most like to use it with is a ProDOS 8 application which of course doesn't support NDAs.

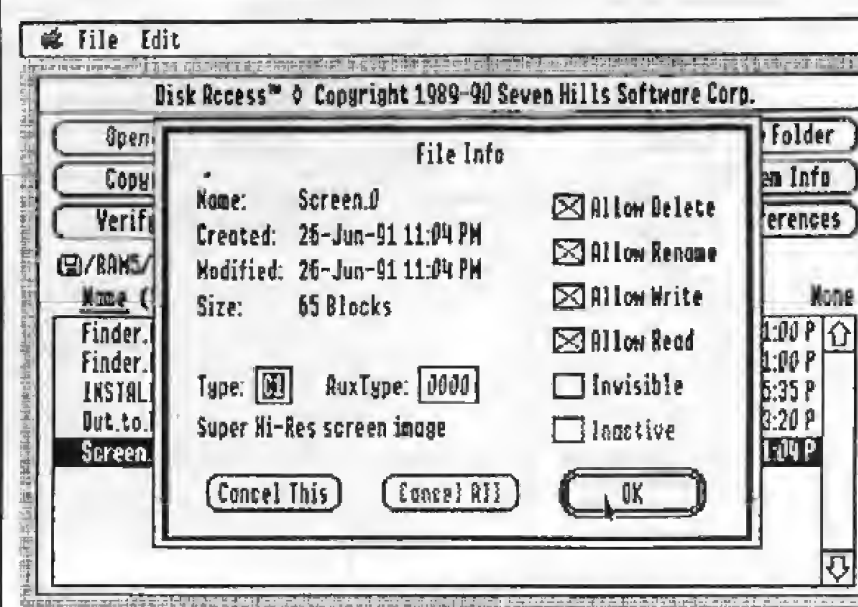
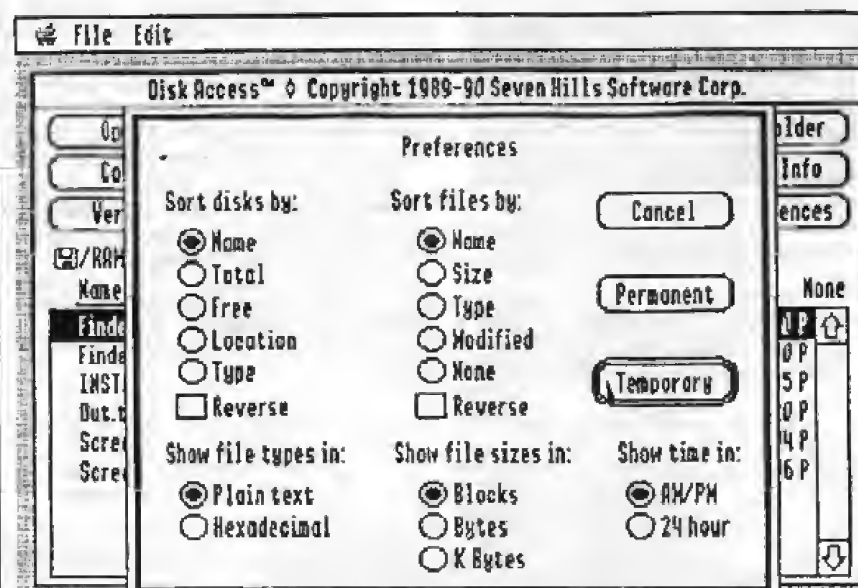
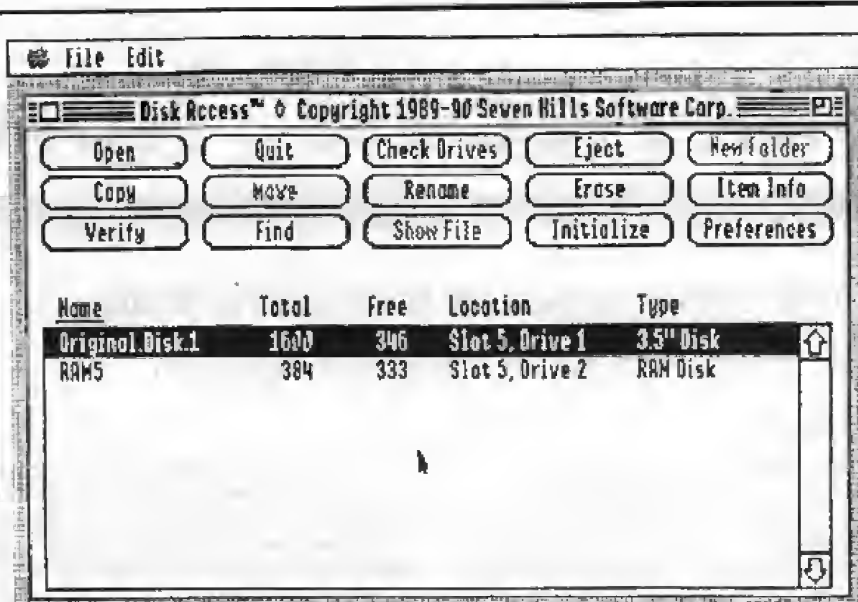
Dave Ferris



info

Product : Disk Access™  
 Publisher : Seven Hills Software  
 Available from :  
 MGA SoftCat  
 41 Cinque Port Street  
 Rye  
 East Sussex TN31 7AD  
 0797-226601  
 Price : £39.95 WYSIWYP

Value : ★★★★★  
 Performance : ★★★★★  
 Documentation : ★★★★★



# Clock Year Routines

## Richard Brown explains how to compute the year without a clock

Hotline News (February) gave an update of the ProDOS algorithm which computes the year from a non-year clock. Readers who do not use ProDOS or whose clock is not ProDOS compatible might like to see a re-print of the AppleSoft equivalent which was published in Windfall/Apple user some years ago. This, suitably updated, is shown in the listing.

Array M() represents the cumulative total of days in a non-leap year from end-January to end-November. (end-December, M(12) = 365, is not needed). The value D = M(M-1) in line 240 may instead be computed and array M() dispensed with if the program already has an array of days-in-the-month for use, say, in a date validation routine.

The rules for placing the years in array Y() are as follows:

1. Choose (as for ProDOS) a range of years including the current year and with only one leap year. In this context it is not clear why the ProDOS algorithm should not also be updated similarly to cover years 1990-1995.
2. Find the weekday (0 = Sunday to 6 = Saturday) of 1st January of the first year in the range and put that year in the corresponding position (0-6) in the array. Continue the years up the array, 'looping' back to Y(0) if necessary, but (again as for ProDOS) put the leap year in twice in the sequence. The next update will be due in 1996 with the range 1994-1999.

**Postscript:** The second listing gives a 100% proof of any amended array Y() by feeding correct data, as though from a clock, for every day in the six year span. (Run time around 3 minutes!). Presumably a similar force feeding of the ProDOS year routine could test any amended ProDOS year 'array'.

Richard Brown



### AppleSoft Year Routine

```
***
200 DIM M(11):M(1):= 31:M(2)= 59:M(3)= 90:M(4)=
    = 120:M(5)= 151:M(6)= 181:M(7)=
    212:M(8)= 243:M(9)= 273:M(10)= 304:M(11)=
    334
210 Y(0)= 1995:Y(1)= 1990:Y(2)= 1991:Y(3)=
    1992:Y(4)= 1992:Y(5)= 1993:Y(6)=
    1994
220 REM Read clock, setting:-
221 REM DT = Day
223 REM M = Month
224 REM DW = Day-of-wk
225 REM (0=Sunday to 6=Saturday)
240 D = M(M - 1) + DT:W = DW + 8 - (D - INT (D /
    7) * 7):V = W - (INT (W / 7) * 7):YE = Y(V)
250 YR$ = STR$ (YR)
***
```

### Check Validity of Year Array Y()

```
***
0 GOTO 90
10 DW = DW + 1:DW = DW * (DW < 7): RETURN
30 VTAB 1: CALL -868: PRINT DT". "M". "YY: RETURN
90 TEXT : HOME
100 DIM MM(12): FOR I = 1 TO 12: READ MM(I): NEXT
200 DIM M(11):Q = 0: FOR I = 1 TO 11:Q = Q +
    MM(I):M(I) = Q: NEXT : REM Load array M()
    cumulatively
210 Y(0)= 1995:Y(1)= 1990:Y(2)= 1991:Y(3)=
    1992:Y(4)= 1992:Y(5)= 1993:Y(6)=
    1994
212 M = 1:DT = 1:DW = 0:SY = 9999: REM Set DW to
    day prior to proper start value
213 REM (DW is immediately updated)
214 FOR I = 0 TO 6: IF SY > Y(I) THEN SY = Y(I):
    REM Find start year in array Y()
215 NEXT
216 GOTO 2000
240 D = M(M - 1) + DT:W = DW + 8 - (D - INT (D /
    7) * 7):V = W - (INT (W / 7) * 7):YE =
    Y(V)
250 RETURN
2000 FOR YY = SY TO SY + 5
2010 FOR M = 1 TO 12
2020 FOR DT = 1 TO MM(M)
2030 GOSUB 10: REM Update DW (0-6)
2035 GOSUB 30: REM Display date, (May be omitted)
2040 GOSUB 240: IF YR < > YY THEN 3000: REM If
    derived year wrong
2050 NEXT DT: IF INT (YY / 4) = YY AND M = 2 AND
    DT = 29 THEN GOSUB 10: IF YR < > YY THEN
    3000: REM Handle leap year day
2060 NEXT M
2070 NEXT YY: VTAB 10: INVERSE : PRINT CHR$ (7) "
    ALL OK ": NORMAL
2900 TEXT : VTAB 18: END
3000 VTAB 10: PRINT CHR$ (7):: IF YY < > SY THEN
    PRINT "Y("V") should be "YY: GOTO 3020
3010 PRINT "Check first year at Y("V")
3020 PRINT : POKE 33,33: LIST 210
3030 END
10000 DATA 31,28,31,30,31,30,31,31,30,31,30,31
```



# Ultimate Fonts

## Our regular contributor Peter Stark looks at a font aid for AppleWorks

### Introduction

Ultimate Fonts is a program which makes it delightfully easy to modify AppleWorks word processor documents containing text in various foreign languages so that the necessary accents and other characters are printed out correctly. It is particularly useful for preparing documents containing German, French, Italian, Portuguese, Spanish, Danish or Swedish. Alternatively or as well, the printed copy can contain various other signs (cent symbols, paragraph or section marks, apples, and many others). Also, text fractions (e.g. 2/3) can be converted into fractions having the correct form and height.

### What is supplied, and what you need

Ultimate Fonts is supplied on a non-protected 5.25" disk, with a well written 36 page manual and a two-page addendum. The disk also includes several sample files, as well as some fonts which contain all the 'extra characters' which Ultimate Fonts needs. To be able to use Ultimate Fonts, you need to have AppleWorks 3.0, TimeOut SuperFonts, and TimeOut UltraMacros (Version 3.1 or later).

### How Ultimate Fonts is used

Installation of Ultimate Fonts is explained clearly in the manual, and I found it easy in practice. Various ways of launching Ultimate Fonts are also described; the most convenient is from the TimeOut menu.

Many fonts of the type used with TimeOut SuperFonts have two 'extra character sets' which contain a number of foreign language characters and certain other symbols. When you run Ultimate Fonts, it scans your AppleWorks word processor text, looking for certain combinations of letters and/or other characters. Wherever it finds these, Ultimate Fonts converts them into different sets of symbols which later cause TimeOut SuperFonts to print out the appropriate foreign language characters and/or various special symbols or fractions. Just as a simple example: If your AppleWorks document contains "Gru..(ss)e", Ultimate Fonts will find the "u.." and convert it into "<2>\_<1>" (which, with a suitable font, TimeOut SuperFonts will

print out as a "u" with an Umlaut). Ultimate Fonts will also locate the "(ss)" and convert it into "<2>g<1>" (which TimeOut SuperFonts will print out correctly as the German "s digraph" character). To explain this example a little further: "<2>" directs TimeOut SuperFonts to the font's first extra character set, in which (in many cases) the equivalent of "u" is a lower case "u" with an Umlaut. The subsequent "<1>" returns TimeOut SuperFonts to the normal character set. Likewise, "<2>g" again directs TimeOut SuperFonts to the font's first extra character set, in which the equivalent of "g" is the German "s digraph" character; the "<1>" which follows returns TimeOut SuperFonts again to the font's normal character set. Thus, "Gru..(ss)e" is printed out as the German word for "greetings". Not every font has the correct 'extra character sets' for Ultimate Fonts to give the desired results, but many do. The fonts supplied on the Ultimate Fonts disk give attractive results.

### Capabilities of Ultimate Fonts

The combination of Ultimate Fonts with AppleWorks, TimeOut UltraMacros, and TimeOut SuperFonts allows you to produce many accented foreign letters (both upper and lower case) and quite a number of special symbols. These include: a, e, i, o, and u with various accents etc. (acute, grave, circumflex, tilde, Umlaut, or diaeresis); n tilde; c cedilla; slashed o; joined ae and oe; double or single curly quotation marks; and inverted question and exclamation marks (as used in Spanish at the start of sentences). The 'Legal and Monetary' selection within Ultimate Fonts makes a lot of other useful symbols available, including: the correct signs for 'registered', 'copyright' and 'trademark'; pound, lire, yen, or cents; and apple, bullet, dagger, diamond, ellipsis, paragraph, and section marks. The 'Math and Scientific Characters' selection allows you to print the proper signs for: division; not equal to; less than or equal to; greater than or equal to; plus or minus; integral, square root, function, Angstroms, degrees, and so on. The same selection set gives you the correct Greek symbols for delta (increment or differen-

tial); mu (micron); pi; sigma (sum); and omega (Ohms). With certain fonts, various fractions can also be produced (half, thirds, quarters, or eighths). The necessary combinations of letters and/or characters which Ultimate Fonts can recognise and convert are chosen well and are easy to remember.

If you wish, you can change the source codes of various of the files that make up Ultimate Fonts, so as to produce a customised version which suits your particular needs. However, you are recommended only to do this if you are experienced at programming macros (and, of course, only

if you use a backup copy of Ultimate Fonts). In any case, it is interesting to look at the three source code files, as these provide interesting information about the way in which Ultimate Fonts works, as well as some useful ideas about how to programme macros.

### Menus

Ultimate Fonts has two AppleWorks-style filecard menus (each of which has an associated help screen). The first menu deals mainly with foreign language characters, with 'legal' and monetary characters, and/or with curly quotation marks. The second menu deals with mathematical and scientific characters and/or with fractions. Another useful choice from this second menu allows you to go direct to TimeOut SuperFonts, so that you can easily preview your modified document or print it out on paper.

### Overall comments

Ultimate Fonts is a well designed program which gives excellent results; I found it a pleasure to use. If you are interested in producing printed text in foreign languages (or containing symbols beyond those which 'Classic' AppleWorks provides), you should certainly consider this software. The suppliers, Kingwood Micro Software, also sell a number of other valuable products for use with AppleWorks.

Peter Stark

info

**Product :** Ultimate Fonts  
**Publisher :** Kingwood Micro Software  
**Available from :** (After 15/9/91)  
Kingwood Micro Software  
2018 Oak Dew Drive  
San Antonio  
Texas 78232  
U.S.A.  
**Price :** \$39.95 Plus \$6 shipping

<b>Value :</b>	★★★★★
<b>Performance :</b>	★★★★★
<b>Documentation :</b>	★★★★★

# Salvation Renaissance

## Dave Ward checks out the second of two Salvation products from Vitesse

This is the second of the five Salvation disk management utilities from Vitesse that we are reviewing. Salvation Renaissance is a disk optimiser for the Apple IIs only. Renaissance consists of a single 3.5" diskette and 20 page manual in a small cardboard box.

Why is a disk optimiser necessary? The answer is as follows: On a hard disk the blocks are organised on tracks just like any other disk, however, as files are deleted and others are saved the blocks used by a particular file may reside on many different tracks with so many files residing upon a hard disk this will eventually lead to the loading and saving of files taking very much longer. The ideal situation would be for the files to be on contiguous blocks on the disk. In fact GS/OS is designed for such file organisation.

This is just what disk optimisers like Renaissance do! Renaissance relocates all the files on the hard disk so that their blocks are contiguous which allows GS/OS to load those files more quickly.

Listing <1> shows files on the Renaissance diskette, system files are omitted.

When you boot the Renaissance diskette this is the screen you get the usual window with menu bar and the following:

### Apple File Edit Examine Optimize

File: Pulling down the FILE entry in the menu bar you get an option to 'Sort Directory' which we will discuss later.

### Examine:

- 1) Blocks - This option produces a large black rectangle and fills in all the used blocks in nice light green. On the right-hand side of the screen you see statistics on the volume size.
- 2) Blocks and files - This option does the same as above but then goes on to check all the files on the volume giving the number of files and the number of folders and the fragmen-

tation count. These are listed on the right-hand side of the screen under the aforementioned statistics. When done the fragmentation count is replaced by the percentage fragmentation. Two buttons appear allowing one to Optimise the volume or exit.

### Optimise:

- 1) Set Options - This allows you to disable three choices:
  - A) No audible sound when Renaissance is done.
  - B) Disable graphics during Optimization.
  - C) Optimize Bad Block files!
- 2) Optimize - Simply shows all the volumes on line - You choose.

Before you optimise a disk the manual firmly states that a backup of the disk be made just in case there is a problem. This is very wise advice.

I tested Renaissance on a number of disks. The first was a 32 Megabyte hard disk that had .5 megabytes of free space. This disk took Renaissance nearly nine hours to optimise it and when Renaissance had finished I had the good fortune to test the catalog and bitmap blocks with a block editor. I found that Renaissance had changed the bitmap so that all the free blocks where assigned to be used and a block from most of the files had been marked as free! Had I used the disk and saved a file the gradual destruction of the disk would have begun. Nearly 3000 errors had to be corrected. Further tests were carried out on an expendable RAM disk but on 20 occasions this disk was unusable after Renaissance had completed its job. Similar results were noted with 800K 3.5" floppies. A text file on the diskette refers to a program on the disk titled BITMAP.FIXER and suggests that one uses this to checkout disks before optimising them. If this was done then Renaissance always worked on the RAM and 3.5" disks that I tried. I didn't have the nerve to try the 32 Megabyte disk again, though. I don't think that the Finder formats disks with a bad bitmap, do you?

When Renaissance has completed its work a dialog box appears in the centre of the screen and a female voice intones that 'Renaissance has finished' and this is repeated until the button in the dialog box is clicked.

### Conclusions:

From the tests that I have made on two Apple IIs computers I don't think that Renaissance is robust enough. Even if it was it is not that good value for money.

### Availability

It is available for £49.95 WYSIWYP from MCA Softcat.

Dave Ward

### Listing 1

Directory: /Renaissance/ Page 1 6-Mar-91 3:04:13 PM

Filename	Blocks	Type	Modified	Created	Length	Auxtype
ProDOS	4	SYS	14-Jun-89	14-Jun-89	\$5C9	\$0000
System	2	DIR	27-Jun-90	17-Jun-89	\$400	\$0000
..Desk.Accts	1	DIR	2-Mar-90	17-Jun-89	\$200	\$0000
..Drivers	1	DIR	26-May-90	17-Jun-89	\$200	\$0000
..Fonts	1	DIR	2-Mar-90	17-Jun-89	\$200	\$0000
..FSTs	1	DIR	2-Mar-90	17-Jun-89	\$200	\$0000
..System.Setup	1	DIR	2-Mar-90	17-Jun-89	\$200	\$0000
..Tools	2	DIR	2-Mar-90	17-Jun-89	\$400	\$0000
Icons	1	DIR	31-Mar-90	17-Jun-89	\$200	\$0000
..Renaiss.Icons	12	ICN	26-May-90	31-Mar-90	\$144E	\$0000
Renaissance	156	\$16	24-Jul-90	25-Jun-90	\$200	\$0100
Read.Me	32	\$16	23-Jul-90	17-Jul-90	\$200	\$0100
BITMAP.FIXER	21	\$16	10-Jun-90	12-Jun-90	\$2800	\$0100
Vitesse	1	DIR	15-Mar-90	21-Jan-90	\$200	\$0000
..Read.Me.Text	10	TXT	23-Jul-90	23-Jul-90	\$113A	R=\$0000
..Help.Text	11	TXT	27-Jun-90	27-Jun-90	\$1260	R=\$0000

Blocks free.....13  
Blocks used.....1587  
Blocks in directory.....1573  
Total blocks.....1600  
Number of standard files....58  
Number of subdirectories....10

# MD-Basic a postscript

## Peter Davis adds some further detail to MD-Basic

I purchased MD-Basic a few weeks ago, and found it easy to use, while giving me a few new insights.

Peter Stark's article in Apple 2000, (Dec 1990 5(6) pp 18) gave a very good description of the MD-Basic package. What he did not present was an example of "optimized" Applesoft, showing minimal line numbers, attenuated variable names,

and the syntax equivalents of WHILE-WEND, IF-THEN-ELSE-ENDIF, REPEAT-UNTIL. Well here is a example which may be of interest to some readers.

The example chosen is simply an anti "screen burn" routine that shows Prodos time dancing around the screen. The dancing clock clears at the touch of a key.

Some readers who may be puzzled at Line 9. The precise treatment of WHILE-WEND, when translated into Applesoft seems depend on the relational operator [ >= ] used as the condition for entry and also on whether the conditional variable appears between WHILE and WEND. I can only add that correctly working routines get compiled, decompiled, then recompiled to the same thing.

Note that CONTROL-D is represented by "Ad" in MD-Basic and that CONTROL-D is represented by "d" in Applesoft Basic

MD-Basic for the GS is published by:

Morgan Davis Group  
10079 Nuerto Lane  
Rancho San Diego  
California 92078-1736  
USA

### Starting with original in MDBASIC. file # RN5.b

```

` JUST A TEST OF RAND or not very RAND

` Start with compiler directives

#include <fileio.h> ` fileio.h contains P8 BAS I/O routines such as
` #define fFlush ? ""dFLUSH"
` #define OutPort 3 ? ""dPR#" 3

#define locate(x,y) vtab y : poke 1403, x
#define Print_Time fFlush : print peek (49043) ":" peek (49042)

`Program starts here
fOutPort 3 ` go to 80 columns please
PRINT ` get locate to work

scrand: ` my name for the routine
maxcount = 30
HOME
repeat ` get random (x,y) coordinates
    randol = RND (1) ` less grainy than (rnd (1) + 1)
    x = int (randol * 75) ` covers 5 chars HH:MM
until x >= 1
repeat
    rando2 = RND (1) ` 2nd rand no else diagonal
    y = int (rando2 * 24)
until y >= 1

FOR count = 1 TO maxcount ` loop here
    IF PEEK (49152) > 128 then ` _KBD $c000 Keyboard input char
        count = maxcount ` must exit loop at NEXT
        HOME ` IF KEY to YOU TOUCHED .....

    else
        locate (x,y)
        Print_Time ` HH:MM
        flag = 0 ` No key touch
    endif

NEXT count ` loop end at count = maxcount

while flag = 0
    flag = 1
    GOTO scrand
wend

PRINT " YOU TOUCHED A KEY " ; " press control - C to stop "

FOR delay = 1 TO 3000
NEXT delay

POKE 49168,0 ` _KBDSTRB $c010 cancel Keyboard strobe
GOTO scrand ` Back to start wait for the next key touch
    
```

## Shop2000

### Apple II cables:

Iigs : ImageWriter II £7.64  
Iigs : ImageWriter I .£9.99  
Iigs : Apple modem .£9.40  
Iigs : modem .....£9.99  
Iigs : LaserWriter ....£9.40  
Iigs extension cable £7.93  
Iigs D-I-Y cable .....£5.29

//e : ImageWriter II £9.99  
//e : ImageWriter I .£9.99  
//e : Apple modem .£8.81  
//e : modem .....£9.99

//c : ImageWriter II £8.52  
//c : ImageWriter I .£7.05  
//c : Apple modem .£7.05  
//c : modem .....£7.05

### Apple II dust covers:

Apple //e, Iigs .....£10.57  
Apple //c .....£10.50  
ImageWriter II .....£10.50  
I/W II + sheet feed £10.50  
ImageWriter I .....£10.50  
ImageWriter 15" ....£10.50

To order, send cheque or  
credit card details to:  
Shop2000, P O Box 3,  
Liverpool, L21 8PY.

TEL 0151 616 0107  
FAX 0151 616 4142



## Compiles to file # RN6

```

1 PRINT "dPR#3: PRINT
2 A = 30: HOME
3 B = RND (1): C = INT (B * 75): IF NOT (C > = 1) THEN 3
4 D = RND (1): E = INT (D * 24): IF NOT (E > = 1) THEN 4
5 FOR F = 1 TO A: IF PEEK (49152) > 128 THEN F = A: HOME : GOTO 7
6 VTAB E: POKE 1403,C: PRINT "dFLUSH": PRINT PEEK (49043);":": PEEK (49042): G = 0
7 NEXT F
8 ON NOT (G = 0) GOTO 10: G = 1: GOTO 2
9 GOTO 8
10 PRINT " YOU TOUCHED A KEY "; " press control - C to stop ": FOR H = 1 TO 3000: NEXT H: POKE 49168,0
: GOTO 2

```

## Decompiles in back to MDBasic File #RN7.b

```

PRINT "dPR#3
PRINT

_2_:
A = 30
HOME

_3_:
B = RND (1)
C = INT (B * 75)
IF NOT (C > = 1) THEN
    GOTO _3_
ENDIF

_4_:
D = RND (1)
E = INT (D * 24)
IF NOT (E > = 1) THEN
    GOTO _4_
ENDIF
FOR F = 1 TO A
    IF PEEK (49152) > 128 THEN
        F = A
        HOME
        GOTO _7_
    ENDIF
    VTAB E
    POKE 1403,C
    PRINT "dFLUSH"
    PRINT PEEK (49043);":": PEEK (49042)
    G = 0
ENDIF

_7_:
NEXT F

_8_:
ON NOT (G = 0) GOTO _10_
G = 1
GOTO _2_

GOTO _8_

_10_:
PRINT " YOU TOUCHED A KEY "; " press control - C to stop "
FOR H = 1 TO 3000
    NEXT H
    POKE 49168,0
    GOTO _2_

```

## Shop2000

New additions Apple II books:

AppleWorks Made Easy, 3rd Ed  
0 07 881587 8 .....£19.95

AppleWorks: Tips and Traps  
0 07 881207 0 .....£16.95

AppleWorks: The Pocket Ref.  
0 07 881405 7 .....£5.95

Apple II User's Guide for Apple II+  
and Apple IIe, 3rd Ed.  
0 07 881176 7 .....£22.95

Apple IIc User's Guide  
0 07 881156 2 .....£22.95

Apple Roots: Assembly Language  
Programming for Apple IIe & IIc  
0 07 881130 9 .....£18.95

New additions general interest:

Music Through MIDI  
1 55615 026 1 .....£17.95

Getting to Know Your Computer  
1 55615 295 7 .....£2.99

Microsoft Computer Dictionary  
1 55615 231 0 .....£22.95

Programmers at Work  
1 55615 211 6 .....£7.95

To order, send cheque or  
credit card details to:  
**Shop2000, P O Box 3,  
Liverpool, L21 8PY.**

TEL: 051 945 0107  
FAX: 051 945 2142

# The Begets of the Apple IIe Motherboard

## Lorin S. Evans gives us a detailed tour of the //e motherboard evolution

Over the years, the Apple IIe computer has undergone several major internal revisions. Software developers have taken advantage of these enhancements to produce software that runs faster and has better graphics than was possible with the original IIe. As a result, you may find that you are unable to run some of the newer software available for the II series computers because of insufficient memory. It is quite possible that the Apple IIe you use is one with an original motherboard, an older set of operating chips, or an 80-column only card. If you want to use double hi-resolution graphics programs like Publish It! 3 or take advantage of the MouseText capability found in communications and word processing software, then read on about the begetting of IIe motherboards and how to upgrade your IIe if it turns out to be an older model.

There are four different motherboards for the IIe computer. There is the original board from 1983 known as the Revision 'A' board; there is a second Revision 'A' board known as the enhanced Logic Board; the Revision 'B' board introduced in 1984; and a newer board sometimes referred to as the Revision 'C' board. In addition, there has been a chip enhancement kit produced for the machine that can be installed on either the enhanced logic 'A' or 'B' board. Only the newer 65C02 central processor was installed on the enhanced Logic Board (aka second

Revision 'A'), whereas the full enhancement kit was added to later Revision 'B' and 'C' boards.

The enhancement kit was designed to allow the IIe, introduced in 1982, to take advantage of software developed for the Apple IIc, introduced in 1984. The enhancement chips, however, do not add the additional memory found in a IIc; that is added via the 80-column card. The enhancement made it possible for programmers to use special symbols, known as MouseText characters, to create programs that are more interesting and intuitive. Depending on the kinds of programs you use (Z-Link, SuperPrint, or Copy II+ (V9.1), New Print Shop) you will find that they will not run at all or stop in midstream because your IIe does not have either the enhancement or a memory upgrade to 128K.

Normally, you cannot see the differences among an original 'A', its 'A' replacement, or a 'B' board by looking at the screen. Here is how to tell by looking inside the computer, and a complete listing of the enhancement chip part numbers.

First turn the power off to your computer, but leave it plugged into the wall. Open the top and touch the power supply with one of your hands to ground yourself and bleed off any static electricity. The power supply is the large metal box inside your set

With the keyboard facing you, look at the upper left hand corner of the motherboard: write down the copy-right date found below the line of silver soldered text, "APPLE IIe". Next look at the centre rear portion of the motherboard, between slots 3 and 5. You should see three lines of information: two done in silver solder characters. You are interested in the second row of silver solder characters and the white numbers immediately below them.

Please refer to Figure 1.

Now let us see if you have any or all of the enhancement chips. Here is how to tell if you have the complete set of chips that come with the enhancement kit. It is possible to have a partial set if the machine has had any chips replaced.

The easy way to do it is to turn on your computer and look at the start-up screen. On an unenhanced IIe, the start-up screen will display "Apple IIe." The screen from a chip enhanced machine shows "Apple //e."

To those for whom seeing is believing, again shut off the power, remove the top and ground yourself to the power supply. Now unplug the set from the wall outlet. Look at the motherboard. You will notice that it is stencilled along the left edge with letters A through F; and along the bottom from left to right 1 to 14. Use these grid markings to locate the chips used in the enhancement kit.

Turn the computer so that the keyboard is to your left

- ❑ Find location B4. This is the Central Processor Chip. In an unenhanced set the third line of text on top of the chip will read 6502A; the enhanced chip will read 65C02.
- ❑ Find location F4. That is your video chip. The enhanced chip stock number is 342-0265.
- ❑ Find location E8. That is the CD ROM chip. The enhanced chip stock number is 342-0304.
- ❑ Find location E10. That is the EF ROM chip. The enhanced chip stock number is 342-0303.

For the enhancement to work, you must have all four chips installed on either an enhanced Logic Board (aka second 'A') or 'B' motherboard. If for some reason you have some of the enhancement chips but not others, purchase and install the missing ones. A complete enhancement kit, installed, will cost you around \$70.00 from an authorised Apple dealer. The kit is also available via mail order as are 80 col-

Figure 1

NUMBER	COPYRIGHT DATE	YOU HAVE
820-0064-A (in silver solder)	1982	original Rev 'A'
820-0064-B (in silver solder)	1982	enhanced Logic Board (second 'A')
607-0164-[B] (in white letters)	1984 or later	Revision 'B' (may or may not be enhanced)
607-0187-[A] (in white letters)	1984 or later	Rev 'B' (with enhanced chips)

umn cards with additional memory. The enhancement ROMs are incompatible with the original 'A' board. There is no charge to upgrade from an original (copyright 1982) 'A' to a 'B' board; your friendly authorised Apple dealer will do it at no charge. If for some reason you have an original 'A' board with upgraded chips and want a 'B' board, be sure your chip set is transferred to the newer board.

If you decide to install the new chips yourself, please be careful. The four ICs you will handle are extremely susceptible to static discharge. ALWAYS touch the metal power supply case to discharge any static that may have built up on your body or clothing before working with these chips.

Should you decide to enhance your IIe, you will then need to check and see if you are using an Apple Extended 80-Column Text Card or the 80-column/64K version. (You can tell which one you have by reading the name on the face of the card). If you have either one, carefully remove it and examine the chip side of the card. In the lower left hand corner are two pins. In an unenhanced computer, the pins are not connected. After you install the enhancement kit, you will need to add a jumper block over those pins - if you remember where you put the little bugger. If you cannot find it, any Apple dealer or Radio Shack store should have one. The newer version of this card uses a solder bridge instead of jumper pins. If the bridge does not have a line scratched through it, then it is ready for use in an enhanced machine. If a scratch line is found through this bridge, then you need to get the bridge soldered closed again.

If you have an 80-column only card, your computer has 64K of memory. You should have a minimum of 128K of memory. Consider replacing it with an 80-column/64K or larger memory card. That way you will be able to run the newer programs that require at least 128K of memory.

With the arrival of the platinum cased machine (1987) there is another edition of the mother board - what I call Rev 'C'. Here the ROM is changed to a 32K ROM replacing the "CD" and "EF" ROM chips; and, RAM changed from (8x) 64x1 (200ns) chips to (2x) 64x4 (150ns or faster). In addition, there is stencilling for an increase in the RAM from 64k to 256k. Given the public statements from Apple concerning the II line of computers, I doubt that we will see any memory increase in a production machine.

There is one other option I have not discussed. When the IIGS was first offered, Apple produced a IIGS conversion kit for the IIe: new motherboard, case, etc. The only difference between the two is the detached keyboard. This kit provides a low cost growth option for someone interested in eventually acquiring a IIGS. All current accessories work with the new motherboard (so you need only buy the basic kit at first), and, by acquiring the IIGS specific hardware (3.5" and 5.25" daisy chain drives, memory card, and RGB monitor) from third party vendors, you will save considerably on the remainder of the conversion. An Apple dealer, who has a kit gathering dust on the shelf, might be willing to part with one at a price advantageous to you.

So now you know how to be sure you are getting the most from your IIe computer. Go sample some of the new software that is available for enhanced IIe machines and renew acquaintances with the wonderful and creative world of Apple computing.

[Most school product catalogs and computer magazines that support Apple computers list vendors who sell products mentioned in this article]

Lorin S. Evans is a member of Washington Apple II and can be reached at 124 Tennessee Avenue, NW, Washington, DC 20002.

"Reprinted with permission from the Apple Library Users Group Newsletter."

## Clocktower

84a Weston Park, Crouch End, London, N8 9PP

Phone & Fax: 081-341 9023

Callers welcome, but please phone first.

Add £5 carriage to any goods less than £150.  
Add 17.5% VAT to these prices - Apple 2000 members deduct 10% from the final total. VISA & ACCESS accepted. Prices and offers are subject to availability and are subject to change without notice.

### Lower prices on Beagle, TimeOut & Appleworks Products

UltraMacros Primer	16.00	TimeOut Thesaurus	31.00
Platinum Point	61.00	TimeOut UltraMacros	37.00
Outliner	43.00	MacroEase	24.00
SuperFonts Activity Guide	31.00	GS Font Editor	31.00
Companion +	31.00	MiniFix 1,2 or 3	19.00
AW 3.0 Companion	23.00	Program Writer	31.00
TimeOut TextTools	31.00	Beagle Compiler	46.00
TimeOut DeskTools I or II	31.00	Point-To-Point	61.00
TimeOut FileMaster	31.00	BeagleWrite GS	61.00
TimeOut Graph	55.00	GS Desk Accessories	37.00
TimeOut PowerPack	31.00	Clip Art vol 1 or Font Lib vol 1	31.00
TimeOut QuickSpall	43.00	BeagleDraw	55.00
TimeOut ReportWriter	48.00	BeagleWrite	49.00
TimeOut SideSpread	31.00	Desk Acc, Pic Mgr, FontPals	25.00
TimeOut SpreadTools	37.00	Dos Master or PRO.CMD	17.00
TimeOut SuperFonts	43.00	Double Data	19.50
TimeOut SuperForms	43.00	FlexiCal	18.00
TimeOut TeleComm	43.00	I.O. Silver, Late Nile, PathFinder	12.00

Prosel 16, manual, text editor & many new features 55.00  
Prosel B (5.25") 26.00      Prosel B (3.5") 24.00

Toolbox/FTA - Photonix II £29 - Bouncing Bluster £38 - Space Shark £32 - Gate £35

### GS Memory enhancements - DMA compatible

RAMPPro - 0k £57 @ 1Mb £117 @ 2Mb £176 @ 4Mb £292  
CVTech (can use existing Apple card) - 0k £80 @ 1Mb £140  
Applied Engineering - GS RAM II 1Mb £140 @ GS RAM Plus  
1Mb £190 @ GS Ultra 1Mb £209 @ Cirtech Primo 1meg £130

### TRANSWARP GS OWNERS - 32K UPGRADE

User installable £80

NEW! TransWarp GS 32k complete £280

Original 8k £210

### ZIP CHIPS FOR ALL MODELS

ZIP GSX 1500 7Mhz 8k £170 @ ZIP GSX 1600 8 Mhz 16k £220

ZIP GSX 1800 9Mhz 16k £280 @ ][+ and IIe ZIPs - call

### APPLIED ENGINEERING

Authorised Dealer  
DL-X WITH FAX + MNPS £245  
DATALINK MODEMS  
FROM £160  
3.5" 1 Mb DRIVE £240  
3.5" 800k DRIVE £170  
HD upgradeable, ][+ & //e  
needs controller card £55  
READYLINK COMMS £55  
PETTRANSPORTER FROM £245  
RAMFACTOR 1 Mb £215

RAMWORKS III 1 Mb £185  
IIC Z-RAM ULTRA 2 1Mb £235  
IIC Z-RAM ULTRA 3 1Mb £265  
IIC RAM EXPRESS II 1 Mb £195  
VULCAN DRIVES 20 Mb £400  
40 Mb £345 100 MEG £995  
PARALLEL PRO £69  
SERIAL PRO £105  
IIGS POWER SUPPLY £84  
//e POWER SUPPLY £70  
//e TRANSWARP £85  
Call for catalogue & other items.

Syquest R45Mb Cartridge drive £490 including one cartridge. 80Mb removable soon! Spare cartridges - call.

Hard drives - from 40Mb @ £275 to any size/price

Clip on battery for GS  
£13.75 Inc. VAT & post

Full range of Cirtech products  
please call

We supply a range of ribbons, discs, fax machines and rolls, etc., originals & quality compatible at surprisingly low prices. Laser & copier toners, original and blueprint remanufactured (note NOT refilled) £55. See other advertisement or call for more information.

AMR 3.5" drives £140 (gives 800k on Apple II & 1.4Mb on Mac)

### NEW! APPLE REPAIR SERVICE - CALL



# Music Writer

## Stuart Anderson plugs himself into a music package for the IIGS

### Memories are made of this

I can remember the day some enthusiastic moron, sorry, colleague of mine arrived back from a meeting with Aldus clutching what he claimed to be the first copy of PageMaker for the Mac in the UK. We all sat around our hugely expanded Mac Plus (40 MB drive!!!) and gazed in awe as the package showed off its skill at laying out text and graphics. I left the office that day thinking that at last these damned computers would be handy to have around after all, and that maybe someday soon along would come a similar package that could lay out music notation with the same amount of ease. After a couple of long years and false starts a package called HB Engraver finally appeared and made a reasonable attempt at filling this gap. Being in the position I'm in allows me to get a good look at early and even pre-release versions of programs in the Mac market. Software houses are always keen to have the opinion of us educational types you know! After several tries HB Engraver gradually evolved into a good solid product, but it wasn't exactly overflowing with extras and productive goodies. Midi support was minimal and it never quite achieved the same sort of complete feeling that PageMaker, for example, had. This brings

me, at last, to Music Writer from Pyware for the Apple IIGS.

### Deskbound

The IIGS has never really been overflowing with good desktop packages, mostly because of the lack of support until recently for one of the concepts that makes programming for the Mac so much nicer than other systems, namely resources, so the appearance of a desktop package that claims to be 'a complete music notation and composition program that has all the power, flexibility and features needed for professional manuscripts and is EASY TO USE!' is a bit of a surprise. I'd settle for a GS version of MacWrite Pro but never mind! The first thing that strikes you is the screen layout. The authors have used colour to good effect and the screen looks oddly unlike a GS. The main window is bordered on the left by the palette of tools and symbols that you need to lay out your music. This small area is used to display twelve palettes which are selected from the 'Tools' menu and are cleverly overlaid which makes it easy to flip from one kind of symbol type, say 'Dynamics', to another such as 'Clefs'. The various tools and symbols found in these palettes include text (for labels, comments and lyrics), staff (adjust staff spacing

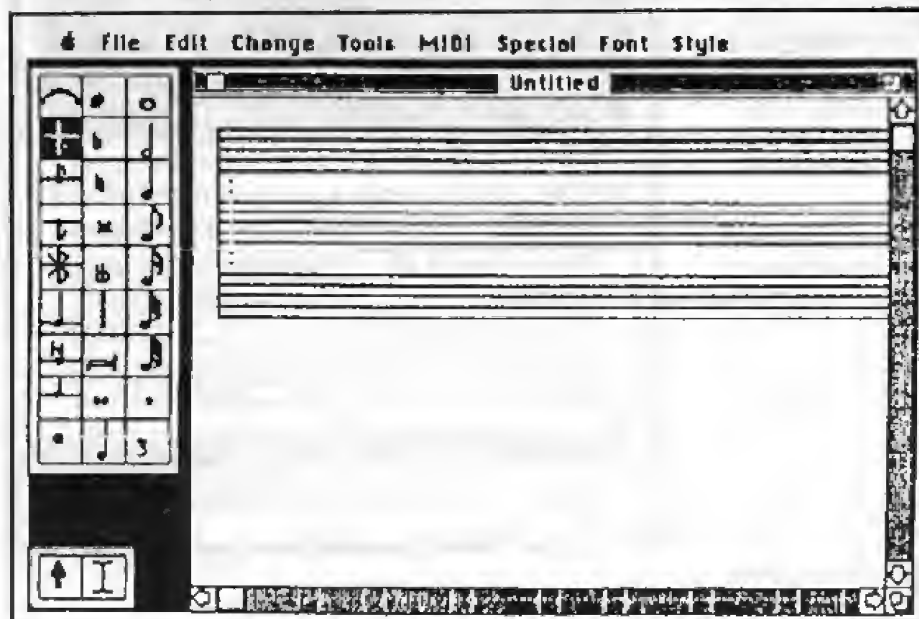
and location) markers (to which you can jump), key signatures and time signatures. On first attempts this seems clumsy and you can make a lot of errors. My first page started off wonderfully and then degenerated until I couldn't select things to edit. However once you master all of the tools, especially those concerned with actual note editing and staff placement all should be well. My first attempt could have been salvaged had I read on to the section in the manual regarding staff manipulation.

### Counting the notes

Basic use of the program really breaks down into three areas, namely note entry, note editing and Output. Note entry can be achieved in one of three ways, by using the note tools or by directly entering the notes from a Midi keyboard in one of two modes. If a Midi keyboard is used in conjunction with the note tools all notes are entered with the same duration as the currently selected length i.e. it is not a real time entry method. This is known as 'Midi mouse' mode and it does make entering things a lot faster. Favourite mode of all for me though is what Pyware have called the 'Mini Sequencer' and this is a cut down Step/Time sequencer which gives you up to 2 staves for entering music. This mode brings up a small window into which your input is received which contains 2 staves and a handful of controls to adjust Tempo and that great cop out for lazy Midi types, Quantisation. Once you have the required passage entered you can then 'Paste' this into your existing sheet. Very neat indeed, but it must be stressed that this can only take a limited amount of data. I managed to send the program off into the weeds by entering too much, but then I was entering with a Midi guitar and had just been listening to Hendrix! Can you say 'Midi overflow'? I knew you could..... One final point on note entry is the package's ability to read and write standard Midi files. I checked this with a small file from Mastertracks on the GS and Mac and it seemed to copy adequately.

### You can't get the staff ...

Outside of the problems with staff placement mentioned earlier (give yourself plenty of room to start with) editing is pretty straightforward. Any item can be moved, deleted and edited through a combination of cursor placement and use of the arrow keys. This sort of fine tuning is only just creeping into DTP packages because the developers seem to want us only to use the keyboard to enter text when in fact some of us are old enough to remember the days before Mice (Hi Ewen!). Once a note is selected for editing various options are open to us, including ties, stem direction and even tie type, slanted or straight. Standard 'Cut, Copy and Paste' does of course work otherwise



the program would have been redesignated from Desktop to Bin bottom, with Paste having two modes. Align mode enters clipboard data alongside existing data and Insert mode does just what you would expect. Other items on the edit menu include Transpose, Invert, Shift and Realign. Alongside the 'Edit' menu we have a 'Change' menu which lets you tamper with Beams, Stems, Bars. It also has a function which again simplifies editing in that it allows you to change the way in which the selection (by dragging over a range) is handled. You can choose to select all symbols, notation only or lyrics only.



#### Midi by any other name

Next in line we have the 'Midi' menu which has the aforementioned 'Midi Mouse' and 'Mini Sequencer', and the all important 'Play' command which brings up a small window which contains Play, Pause and Stop functions. Also included in this menu are options for Record, such as clock/internal sync and metronome. Play, such as Midi channel, instrument assignment (more on this and the Instruments menu later) and transposition, and Midi Options which include input and output channels, Midi interface type and location. The next menu is the 'Special' menu which contains commands for locating marked sections, jumping to a measure or staff and various page setup options including fonts, headers and a page preview function. This 'Page Preview' feature is a useful aid in assessing what the final printed page will look like, but shows no great detail and has no zoom option.

#### You still gotta hear it

This brings me neatly to the two output functions, playback and printing. Playback is achieved using the menu option mentioned earlier and has three options. Midi, Internal and Both. Each stave can be assigned to a Midi channel and internal instrument which is played back by the GS's Ensoniq DOC chip (the G in GS!). Although only one set of instrument files is included with the package it is possible through Pyware's 'Instrument Designer Package' to add these. This is just as well as many of the sounds are pretty weedy, however it seems to be the case that these files are not standard GS sound files so using all those nice Synthlab sounds is out of the question. Playback over Midi seemed

to work OK although I had a few occasions when Note Off commands didn't seem to be sent to my synth. I wasn't able to track the cause down to either this package or my wiring however I have had similar problems with EZ Vision on the Mac. One nice touch is having Midi program numbers for each stave along with a play on/off option which means you can audition each stave separately. Printing the end result of your labours can be achieved on either the ImageWriter or LaserWriter. The package comes with a screen version of the Sonata font but no Laser (Postscript) version. As I wasn't able to try it with the LaserWriter I can't vouch for the output, but I would imagine that unless you have some way of downloading a Postscript version of Sonata and making it resident before you print from the GS the results are going not going to be of the quality one would expect. On the other hand this is an inherent problem with non resident laser fonts on the GS at the moment anyway so we can't really blame Pyware. Time will tell if the next release of the system software will support Postscript font downloading. Printing to the ImageWriter was painless as long as you have more than the standard 1.25 MB on your machine. I tried to run the package on a stock 1.25 MB GS and printing seemed erratic, with chunks of garbage being printed at random. With more Ram to play with the problem seemed to disappear. Yet again this could be down to the printer driver as opposed to Pyware but it was hard to get consistent results on the smaller machine.

#### The good bad and the ugly

A quick run down then on the good and bad points-

##### Good

Pointer and Keyboard shortcuts are well implemented making it easy to move around the various tools.

Fine tune mode for selected notes when editing is a feature that should be adopted by other packages.

Transposition dialog box logical and not lacking in options.

Midi input modes with Midi Mouse and Mini Sequencer are well implemented.

Easy addition of text for notes and rehearsal markers.

Package demands that you 'Save' before printing (this should be compulsory!).

##### Bad

Otherwise good manual (with index!) spoiled by screen shot not matching actual menu layout.

Occasionally leaving the Play window on screen caused main window to become deselected which required two clicks in the data area of the main window to activate it.

Midi options such as interface and slot should be handled by a standard



system CDEV (Synthlab gets this right, but then it is by Apple). The program definitely has problems when running short of memory.

#### So how did we rate it?

All in all then a good package. Pyware deserve credit for even attempting to do this let alone succeeding as much as they do. I was encouraged by the fact that they seem to want to support the package and refine it, unlike some companies who release GS products then quickly get out of the market (are you listening E.A.?). Major inroads could be made with the use of resources for windows, menus etc., but bearing in mind the evolution of the package, we are now on version 2.0, it is not unreasonable for the company to have avoided their use. Perhaps the next major release will see such goodies as resources, floating tool and play windows and better memory management. I started off disliking even the idea of doing this sort of thing on the GS but would like to think that with a few wrinkles sorted out Pyware can show some of the major software houses just what can be done with our beloved GS.

Stuart Anderson

info

Product : MusicWriter

Publisher : Pyware

Available from :

MGA SoftCat

41 Cinque Port Street

Rye

East Sussex TN31 7AD

0797-226601

Price : £119 WYSIWYP

Value :

★★★★

Performance :

★★★★★

Documentation :

★★★

# Font Factory™ GS

## Fred Greatorex our resident font fanatic looks at a ligs font editor

### Introduction

Font factory is a GSOS program that allows you to create and edit "standard IIGS fonts". It is an easy to use, powerful font editor that can be mastered in an evening.

### Documentation

The documentation consists of a 58 page manual including 3 appendices. The manual starts off explaining how to make working backup copies of the disk or how to install the program via the GS's finder. The folks at Seven Hills Software also explain how GS memory management works in regards to desk accessories. This is vital on a machine with 1 Mb or less as the program requires 768k and Desk accessories can eat up memory at a surprising rate. The installation section of the manual also covers the control panel, and how to check to ensure that every thing is configured so that Font Factory will run properly the first time.

### Getting Started

Before you ever start to edit fonts, you should at least have an idea of what a font actually is, and what kind of information is contained in a font. Font Factory give a good two paragraph definition of fonts and how they work. When you open up a font to edit, you are given a window that displays the font in ASCII sequence with the capital characters aligned over their lowercase counterparts. This is especially good as you can judge size differences between the two immediately. However, the windows do scroll a bit on the slow side. If you open a font that is damaged (and what a surprise it is when you have one!) Font Factory will alert you to this. The manual doesn't cover what to do with a damaged font, but if it opens the font, you can edit the font and re-save it as a corrected copy. After you finish editing your font you can print out a copy on a dot matrix printer. In the Font Factory manual it states that "Font Factory GS is not meant for creating LaserWriter fonts. You can print to a LaserWriter but the characters will not be 'LaserWriter quality'". This is no big deal as most people don't have LaserWriters, and

probably will not need to edit LaserWriter Fonts.

### Reference

Font Factory gives good explanations of its menus and options, and it also lists the command keys (in the reference and in the index) that correspond with the menu options.

### Edit Menu

The Edit menu contains a neat 'Close All' option. This refers to the font window that are open. If a font in a window has not been save Font Factory will pause to ask you whether or not you wish to save the edited version. The Edit menu also contains the standard edit functions for anyone used to GS specific programs. The Cut, Copy and Paste work only in the Font Window (Where the entire font is displayed), and not in the Edit Window, while the Undo and Clear work only in the Edit Window and not in Font Windows. The additional functions Edit Font, Edit Character and Edit Missing Symbol. Edit font appears similar to a GS word processors "Choose Font" option. The difference is, is that you may select a 10 point font, then change the point size in the Size window and Font Factory will automatically scale the font to the appropriate size! You must then edit the rough pixels out of the font, or use the Smooth Font option. The default for loading in fonts via the Edit Font option is "Plain", but you can choose to change that to the Bold, Italic, Underline, Outline or Shadow options by clicking the appropriate box on the Edit font window. The Edit Character option can be used instead of double clicking on a character. Edit Missing Symbol allows you to edit the character used when the GS encounters an ASCII character code that doesn't have a pre-defined character (the little box or question mark that appears when you type [option] and another key to get a special character is the "Missing Symbol").

### View Menu

From the View Menu, you can change the overall appearance of the way the font is displayed. You may view the font "As Edited", "As System Font" (i.e.

Shaston) or "As ASCII Code". You also have the standard Plain, Bold, Italic, Underline, Outline and Shadow options. In case you opened the font instead of importing it through the Edit Font option.

### Special Menu

The Special Menu is Font Factory's strong point. From this menu, you can display Grid lines (in the editing window), turn the Guide Lines on and off, Flip Horizontal, Flip Vertical (very useful), Rotate Right, Rotate Left and Smooth. The Flip Vertical flips the character upside-down, the Flip Horizontal flips the character so that it becomes a mirror image of it's self. The Rotate functions rotate the character either left or right in 90 degree increments. The Smooth function is interesting, but should be used with care. It is designed to "smooth" the rough bits from re-sized fonts, which it does well, but at the price of changing the characteristics of the font. I had re-sized both Courier 18 point and 24 point to a 36 point font. After re-sizing I compared both 36 point fonts, and they were identical but needed some cleaning up. After using the smooth command, the characters were exactly that. Smooth. They looked nice, but didn't look like Courier fonts. The Smooth Font option shouldn't be used on fonts that are 'square' or 'angular' as it zaps the corners or single pixel wide lines.

### Convert Fonts

There is also a Convert Fonts option that allows you to switch from standard IIGS to Publish-It fonts and back again. Not having any Publish-It fonts I couldn't test this. Under the Convert Fonts option is an Install Fonts Option. This appears to be similar to the IIGS installer program, but will only install one file at a time. The nice bit about this option is that you may edit the font ID information contained in a font. This would allow you to have two versions of the same font in your :System :Fonts directory (like a version that you were editing and a usable version). The last option of the Special menu is the Rename Fonts Option. From this window you can change the fonts name, number, style information, and size. However, if you are trying to install gobs of fonts at a time, I would use the finder.

### Window Menu

The last menu is the Window menu. From here you can either Show Clipboard or thumb through the font windows.

### Window Types

There are two different kinds of windows in Font Factory. The first is the Font Window. This window displays the font that you are working on, the leading points (how much space between characters) and the number of edited characters. The second type of



window is the Character Window. This is the window that opens up when you select a character to edit. The Character Window displays an enlarged version of the character you are editing, a sub-window that contains the character as it appears normally in Plain, Bold, Italic, Underline, Outline and Shadow. While in the Character Window, you may change the character's position right, left up or down by holding down the Shift Key while clicking on the character with the mouse. One slightly awkward thing in the Character Window, is changing the Right Margin of the character. This is accomplished by moving a red dot on the baseline of the character with the mouse. It is awkward because it is sometimes hard to line up this dot with the right most pixel of the character. I feel that if the dot was replaced with a vertical line, it would make aligning the margins easier. The Grid lines are a nice dark blue, which contrasts well enough with the white background and black pixels. The Guides are a bit confusing at first. There are two guides that you can't shut off, the left margin and the baseline. The guides that may be turned on and off are for the ascent and decent of the character. I found that it is much easier to edit a character with these guides on, but if you turn them off, you can get a better idea of what your character will look like when you print.

#### Conclusion

All in all, I liked Font Factory GS, and it is better by far than the Public Domain font editors that I have used. But is it worth the money? I would say yes, especially if you spend any time at all editing fonts. If you just want to change or add a few characters I would vote for a Public Domain or Shareware font editor.

Fred Greatorax

info

Product : Font Factory

Publisher : Seven Hills Software

Available from :

MGA SoftCat

41 Cinque Port Street

Rye

East Sussex TN31 7AD

0797-226601

Price : £39.95 WYSIWYP

Value : ★★★★★

Performance : ★★★★★

Documentation : ★★★★★

## Who'd have thought it

□ Message received in my Mailbox on CompuServe the other day .....

From: Jeremy Guinn, 100016,560  
To: Ewen Wannop, 76224,211  
Date: Mon, Jul 8, 1991, 11:38 pm  
Subject: Computer Sign Language

From "Feedback" New Scientist 6 July 1991

"Read the following, if you can, without waving your hands about. Until

recently the British Sign Language for "computer" consisted of both index fingers spiralling clockwise, followed by typing motions. You know, a computer is one of those things you see in movies with nine-track tape drives whirling and people typing on terminals.

Now the sign has been updated: both index fingers draw the rectangular outline of a video monitor and then make typing motions. A computer is one of those things where you look at your screen and type on your own key board. As this increasing familiarity breeds contempt, we can expect to see the sign evolve into the terser "three fingered salute" employed by IBM PC users whose recalcitrant software has gone off to contemplate it's own navel, forcing them to reset the machine and start from scratch."

### APPLE II PRODUCTS

Publish-It! 4 £129.99

Introduces price for this latest version of TimeWorks' brilliant DTP program, (from 1/10/91 the price will be £149.95\*). Upgrades cost just £49.99\*. (Send your master 3.5" AND master 5.25" program disks together with your cheque for £49.99).

Now exports text so that what you input isn't locked in, and you CAN upgrade to another machine without having to retype your data. Now imports double-line, Print Shop, NewsRoom, PrintShop GS, and New Print Shop graphics. Now supports HP DeskJet, LaserJet, and compatible printers for 75x150dpi output, (or you can output as a PostScript file for typesetting services to print at 300/600/1200dpi or higher). Now includes automatic hyphenation, stylesheets (saved templates of regularly-used or complicated layouts without the text or graphics). Like AppleWorks, Publish-It! "takes over" all available RAM, but you can now limit the amount used so that Publish-It! will happily co-exist in the GS SoftSwitch environment.

Now uses IIGS System Fonts directly without conversion. Text auto-flows into frames without the need for tedious manual time-linking.

Other new features: formatting of data disks without leaving program; selection of all objects on a page for attribute alteration; double-clicking on any object to open specifications; dialog box; descriptive names for PostScript files.

### Apple IIGS SALE

Geometry £49.99

Educational program by Broderbund/Sonoci.

MultiScribe GS £49.99

Versatile graphical word-processor with spell-checker. Multiple fonts & stylesizes, and clipart can be used. (Exactly the same as BeagleWrite GS, just in the old StyleWare packaging).

Font Library Vol.1 £19.99

Fonts for MultiScribe-GS & BeagleWrite-GS.

GraphicWriter III £79.99

Acknowledged worldwide to be the best GS DTP program.

Includes print program and word-processor with spell-checker.

SoftWood GS-File £9.99

Simple database.

SoftSwitch £39.99

Incredible program-switching system which actually allows you to leave up to nine 8-bit Apple II programs running at once. Load up SoftSwitch, then load your programs, (like AppleWorks, Dazzle Draw, Copy II+, ProSEL-8, RAMup, Think-Works, or any non-GS-specific program). Once loaded, you simply switch to any of the nine available programs with a few keypresses, use that program for as long as you like, then switch back to your first or any other program, and you always return exactly to where you left, regardless of how deeply embedded you were in the application program's menus.

PaintWorks+ £29.99

Basic paint program from Activision.

HyperStudio Demo £19.99+R

Refundable demo edition which lets you check out the capabilities of Roger Wagner's great HyperMedia product.

Music Construction Set £29.99

Electronic Arts' original music system.

Music Studio £29.99

From Activision.

VIP Professional £79.99

The spreadsheet for the IIGS, fully emulates Lotus 1-2-3 commands, but also uses AppleWorks files.

TML Basic £39.99

16-Bit Basic programming system.

Medley £89.99

Extensive DTP system for the IIGS, recognised as the most reliable available.

Hacker II £9.99

Great game from Activision - where else can you get a real IIGS game for this price?

Mean-18 Golf £19.99

World-Tour Golf £19.99

Destroyer £14.99

Blow up subs and aerial attackers from your USN destroyer.

Monte Carlo £19.99

The gambler's dream - brush up on your baccarat, craps, slots, blackjack, roulette, video poker, and roulette.

War in Middle Earth £24.99

Finger Tolkien's mythical adventureland...

Typing Tutor IV £24.99

Learn to touch-type yourself, or even rent out your GS as a private typing tutor...

Xenocide £19.99

Science fiction arcade game.

Transylvania III £19.99

Adventure game.

Task Force £19.99

Wipe out terrorists and street nasties.

Silpheed £19.99

Compulsive arcade game from Japan - blast-em-up type.

Dungeon Master £19.99

Put you inside the most realistic and extensive dungeon imaginable - actually see the objects inside in colour.

### SOFTWARE CLEARANCE

TimeOut ReportWriter £49.99

Compuserc £39.99

Sticks & shares portfolio analysis system.

ReadyLink £49.99

One of the best and easily-automated communications programs on the market - from Applied Engineering.

UFC £19.99

Utility for converting text data files between DOS 3.3, ProDOS, CPM, and Pascal.

TypeWriter £19.99

Brilliantly simple utility for manually filling in forms using your computer & printer - throw away that typewriter!

VisiTrend/VisiPlot £29.99

Business charting/graphing program for visual representation of your Visicalc and other spreadsheet/database figures.

MGA SoftCat AD ONE

Tel: 0797-226601 [fax: 226721]

prices include VAT

\*prices include p&p & where two prices shown, the lower price is for Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

Apple II/III or other 8-bit

# APPLE II INFORMATION SOURCE by Peter Davis

@The Lilacs, Luxted Road, Downe, Orpington, Kent BR6 7JS, 0689/857085

Peeks and Pokes	Hardcore	Jun 85	5(3)	23	
Disk Zaps and all that (part 1)	Hardcore	Feb 86	6(1)	13	
Calendar	Hardcore	Apr 86	6(2)	32	Time Date
Copy A	Hardcore	Apr 86	6(2)	10	13
Disk Zaps and all that (part 2)	Hardcore	Apr 86	6(2)	25	
Apple IIc S/B Power Supply (DIY Proj)	Hardcore	Jun 86	6(3)	21	23
Disk Zaps and all that (part 3)	Hardcore	Jun 86	6(3)	28	29
Picking up Applesoft (How much was that variable?)	Open Apple	Jun 86	2	35	38
PinPoint (An AppleWorks Accessory)	Hardcore	Jun 86	6(3)	3	6
Disk Zaps and all that (part 4)	Apple 2000	Aug 86	1(1)	24	25
Chameleon	Apple 2000	Oct 86	1(2)	16	
Disk Zaps and all that (part 5)	Apple 2000	Oct 86	1(2)	14	15
Review Of the GS	Apple 2000	Oct 86	1(2)	30	32
ZBasic V 3.0	Apple 2000	Oct 86	1(2)	34	35
Wait A Second	Open Apple	Nov 86	2	76	Basic subroutine waits for input
Locksmith	Apple 2000	Feb 87	1(3)	36	37
Disk Zaps and all that (part 6)	Apple 2000	Apr 87	2(2)	26	37
Gazelle	Apple 2000	Apr 87	2(2)	18	20
GS clock	Apple 2000	Apr 87	2(2)	22	23
Prodos Catalog Reader (Dircad)	Apple 2000	Apr 87	2(2)	32	Time Calendar Date
Hard Disk Dives Made Easy	A+	May 87	5.11	30	34
ProBasic	Apple 2000	Jun 87	2(3)	46	
Program Writer (editor)	Apple 2000	Jun 87	2(3)	46	
The Big U	Apple 2000	Jun 87	2(3)	10	11
Visualizer	Apple 2000	Aug 87	2(4)	34	
# 500 Hard Disk (ProAp)	Apple 2000	Oct 87	2(5)	34	
Printing with AppleWriter	Apple 2000	Oct 87	2(5)	3	
About When (Prodos Date)	Apple 2000	Dec 87	2(6)	22	
/COLDSTART routine (and /RAM5)	Open Apple	Apr 88	4.21.a		92
ProSel /COLDSTART routine (A2C Jan 1988)	Open Apple	Jan 88	3.92a	92	Save
Prodos Time	Open Apple	Feb 88	4.1	4.7	8
guage					
Merlin 8/16	Apple 2000	Apr 88	3(2)	44	47
TimeOut Series	Apple 2000	Apr 88	3(2)	26	31
Magic of Prosel	Apple 2000	Jun 88	3(3)	18	19
Living with an SCSI Hard Disk	Apple 2000	Aug 88	3(4)	26	27
What is your Format	Apple 2000	Aug 88	3(4)	41	
Large Disk Drives	Open Apple	Sep 88	4.8	63	Modify Prodos
/PROCMD	Apple 2000	Oct 88	3(5)	30	32
AppleWriter	Apple 2000	Oct 88	3(5)	37	38
Megaboard Hard Disk Controller	Apple 2000	Oct 88	3(5)	18	
Online in Basic	Call-A.P.P.L.E	Nov 88	11.10	57	58
Rand (Random Number generator)	Call-A.P.P.L.E	Nov 88	11.10	12	49
Disk Drive Pin Outs	Apple 2000	Dec 88	3(6)	28	29
Hard disk and SCSI Home Build	Open Apple	Dec 88	4	85	86
Large Disk Drives	Apple 2000	Dec 88	3(6)	29	All about
MacroTools	Apple 2000	Dec 88	3(6)	22	25
MacroTools	Apple 2000	Dec 88	3(6)	22	25
Build your own SCSI Seagate Hard Drive	Open Apple	Jan 89	4.12	6	7
Lam is back (on the GS)	Open Apple	Jan 89	4.12	8	
Higher Education Applications	Call-A.P.P.L.E	Feb 89	12.2	10	12
TimeOut! (More)	Apple 2000	Feb 89	4(1)	14	19
An Introduction to AppleWorks and Hard disk Drives	AppleWorks Forum	Mar 89	IV.3	9	10
60 into 40 does fit after all (hard Disk)	Apple 2000	Apr 89	4(2)	38	39
Cirtech SCSI for Hard Disk	Apple 2000	Apr 89	4(2)	36	37
How to Select a Hard Drive	AppleWorks Forum	Apr 89	IV.4	15	20
Macro.You.Accuse	Apple 2000	Apr 89	4(2)	24	24
SpreadTools	Apple 2000	Apr 89	4(2)	12	14
Build your own SCSI Seagate Hard Drive	Open Apple	May 89	5.4	28	29
Cross-Works	A+	May 89	7.5	50	54
CrossWorks : File Transfer...	AppleWorks Forum	May 89	IV.5	10	13
Hard Choices	A+	May 89	7.5	24	37
Home Brew Hard disk Drive	A+	May 89	7.5	38	42
How to Hard Disk	A+	May 89	7.5	17	23
How to set up a Hard disk Drive	AppleWorks Forum	May 89	IV.5	18	21
Where your Data are. (Hard disk Drive maintenance)	InCider	May 89	7.5	54	60
EasyDrive, Squirt, 16, Jumpstart, Finder C					
How to Install an Operating System on a Hard disk Drive	Apple 2000	Jun 89	4(3)	8	11
	AppleWorks Forum	Jun 89	IV.6	12	17



# C Side Tales (C programming on the Apple II)

Call-A.P.P.L.E	Jul 89	12.7	23	27	
ESC Concept (another Basic GET routine)	Call-A.P.P.L.E	Jul 89	12.7	62	
How to Manage your Hard Drive	AppleWorks Forum	Jul 89	IV.7	26	30
IBM to Apple	Call-A.P.P.L.E	Jul 89	12.7	63	
Input or Get Interrupt for Time	A2.Central	Jul 89	5.6	47	48
Lauching P16 from Basic	Call-A.P.P.L.E	Jul 89	12.7	63	
Micol Advanced Basic	Call-A.P.P.L.E	Jul 89	12.7	41	48
Rand (Random Number generator)	Call-A.P.P.L.E	Jul 89	12.7	64	
How to Install AppleWorks on a hard disk Drive	AppleWorks Forum	Aug 89	IV.8	14	16
Two Hard disks	Apple 2000	Aug 89	4(4)	32	33
Carriage Return Stripper	A+	Sep 89	7.9	27	
How to Manage your Hard disk	AppleWorks Forum	Sep 89	IV.9	18	22 Optimize
Patchit (Program .TBAS)	Prosel	Sep 89	V7.9		Patches Prodos for 40 Tracks, Blinking
Partition Experiences (Hard Disk)	Apple 2000	Oct 89	4(5)	37	Dos Master
Power supplies for Hard disks	Apple 2000	Oct 89	4(4)	38	Computerware Research Ltd
Prodos Filetypes	Apple 2000	Oct 89	4(5)	26	
Program Writer (editor)	Apple 2000	Oct 89	4(5)	13	14 Macros
Apple GS Machine Language for Beginners	Apple 2000	Dec 89	4(6)	16	Wagner
AppleWorks 3.0	Apple 2000	Dec 89	4(6)	34	36
Build your own SCSI Tape Backup	Apple 2000	Dec 89	4(6)	20	22
Finder, EasyDrive & Prosel	Apple 2000	Dec 89	4(6)	18	19
L Test. (My first Hard drive)	Apple 2000	Dec 89	4(4)	13	
Perlin Megaboard for Hard drive See DMA	Open Apple	Dec 89	5.86	86	SeagateST-277N
Program Writer 2.0 (editor)	Apple 2000	Dec 89	4(6)	30	32
RGB Connections	Apple 2000	Dec 89	4(6)	4	
MORE REMARKS (ADOC)	A2 Central	Jan 90	5	5.92	
Apple Extras	Apple 2000	Feb 90	5(1)	10	12
Applied Ingenuity (Hard Drive	Apple 2000	Feb 90	5(1)	27	
Beagle Compiler	Apple 2000	Feb 90	5(1)	32	
Finder Icons	Apple 2000	Feb 90	5(1)	23	25 Diced
Hard Drive Mail Box	Apple 2000	Feb 90	5(1)	5	5
NSC software (Prodos v1.8)	A2 Central	Feb 90	6	6.7b	
Using Finder as a Launcher	Apple 2000	Feb 90	5(1)	25	26 Finder
Accursed Curser (read the curser position)	A2 Central	Mar 90	6	6.13b	14
A Poke of Apples (Peek Apple II Location \$FBBF)	Apple 2000	Apr 90	5(2)	12	13 See Note at the end by Ewen Wannop re. 3.5, Lisa, Macintosh
Apple SCSI Card	Apple 2000	Apr 90	5(2)	35	
AppleWorks 3.0 Bugs	Apple 2000	Apr 90	5(2)	15	
Cross-Works	A2-Central Catalog	Apr 90	4/90		CrossWorks
Disk Operating System (Inner Workings)	Apple 2000	Apr 90	5(2)	8	9 See Note at the end by Ewen Wannop re. 3.5, Lisa, Macintosh
InSyder (Cirtech Hard Disk)	Apple 2000	Apr 90	5(2)	35	37
Date Arithmetic in Spreadsheet	Apple 2000	Jun 90	5(3)	22	23 Desktop Manager (IIGS) for printer dumps
Hexadecimal to Hex	Apple 2000	Jun 90	5(3)	6	
Telephone Call Codes London	Apple 2000	Jun 90	5(3)	16	Assembly Lang
Vulcan Hard Disk	Apple 2000	Jun 90	5(3)	30	Macro
Day of the week	Nibble	Aug 90	11.0871		Time Calendar
Disapearing disk drive bug	Apple 2000	Aug 90	5(4)	6	
Disk Zaps and all that	Apple 2000	Aug 90	5(4)	12	13
Date Arithmetic correction	Apple Slice	Sep 90	19	6	
Composite and Analog Video	Apple 2000	Oct 90	5(5)	32	33 Tech Note
Disapearing disk drive bug	Apple 2000	Oct 90	5(5)	13	Actual hardware
Hard Disk Drive (non SCSI)	Apple 2000	Oct 90	5(5)	27	29 Expert on Actual hardware
Installing GS/OS on SCSI Hard	Apple 2000	Oct 90	5(5)	30	31 Tech Note
Time.Date	Nibble	Oct 90	11.107		Time locations Calendar
High Speed SCSI Cards for Apple II (Hard)	Nibble	Nov 90	11.1140	42	RamFast
NSC software (Prodos v1.9)	A2 Central	Nov 90	6	6.79a	See also A2.Central 6.87 Jan 91 re. SMT Inc and NS.CLOCK.SYSTEM
Fast Data Pro	Apple 2000	Dec 90	5(6)	20	
II GS System 5.0 features	Apple 2000	Dec 90	5(6)	28	30
MD-Basic	Apple 2000	Dec 90	5(6)	18	19
Peripherals: Quick Chart	Apple 2000	Dec 90	5(6)	36	
AppleWriter II (tips on WPL)	Apple 2000	Feb 91	6(1)	21	23
Applied Engineering 1600K High Density Disk Drive	Apple 2000	Feb 91	6(1)	30	31
EuroWorks	Apple 2000	Feb 91	6(1)	17	
Geostationary TV Satellite	Apple 2000	Feb 91	6(1)	13	Foreign Language Printout and Letters
Menu Master	A2 Central	Feb 91	7	7.4b	Starts DOS 3.3
NSC software Patched Correction (Prodos v1.9)	A2 Central	Feb 91	7	7.6a	See also A2.Central 6.87 Jan 91 re. SMT Inc and NS.CLOCK.SYSTEM
Prosel 16	Apple 2000	Feb 91	6(1)	32	35 Version v8.58



# Internet

## Stephen Pickering describes the Internet communications system

□ *Stephen uses Internet daily in his work. He is willing to answer any questions you may have. Contact him by voice on (0698) - 829514.*

### Introduction

The purpose of this article is to provide an insight into the Internet. It is only intended to promote discussion, a full discussion of the capabilities and workings of the Internet would be a book in itself, the specifications consist of many megabytes of text (I possess about 8Mbyte of RFC's).

### Internet

Originally there was a computer network called ARPANET (U.S. Defense Advanced Research Project Agency Network), a wide area experimental network connecting various hosts and terminal servers. At the same time, LAN's (Local Area Networks) and WAN's (Wide Area Networks) were being developed by various organisations.

The network protocol (IP) was developed to allow these organisations to connect their networks to the wide area ARPANET network via gateways.

The term Internet is generally used to describe the whole network.

### Gateways

A gateway is a device capable of connecting any two networks together. Only traffic that needs to go from one network to another will cross the gateway, thus reducing the traffic on the Internet.

### Operating on the Internet

Each regional network (NASA, NSFNET, etc.) is connected to the ARPANET has its own operations centre. The ARPANET is run by BBN Systems.

The Internet is controlled by the IAB (Internet Activities Board) and is responsible for setting the technical direction, establishing standards, and resolving problems in the Internet.

### Internet addresses

Internet addresses consist of a four octet (32 bits) source or destination address consisting of a network field and a local address field. Normally the address is written as four decimal num-

bers separated by periods (eg. 128.174.5.50).

Before a local network can be connected to the Internet it must be allocated a unique IP address. These addresses are allocated by SRI-NIC. The allocation process consists of getting an application form. Send a message to Hostmaster@NIC.DDN.MIL and ask for the template for a connected address. If your organisation manages its own addresses, request an address from your network administrator.

### RFC's

The internal workings of the Internet are defined in a collection of documents called RFC's (Request For Comments). At writing there are 1233 RFC's in existence, documents range from a couple of pages to a couple of hundred. Not all RFC's are current, some have been obsoleted by new RFC's.

### TCP/IP [RFC793/RFC791]

TCP/IP (Transmission Control Protocol / Internet Protocol) are the basis of the Internet. The Protocol TCP is a protocol that operates over IP to pro-

vide a high reliable, connection oriented, end-to-end transport service between processes in end systems connected to the Internet (also known as peer to peer connectivity).

### Telnet [RFC854]

Telnet is a TCP based service that provides a simple Network Virtual terminal which is a bidirectional character device. Normally this service is used to provide a remote interactive logon facility to a host computer.

### FTP [RFC959]

File Transfer Protocol is a method of performing file transfers over the Internet, based on the TCP service.

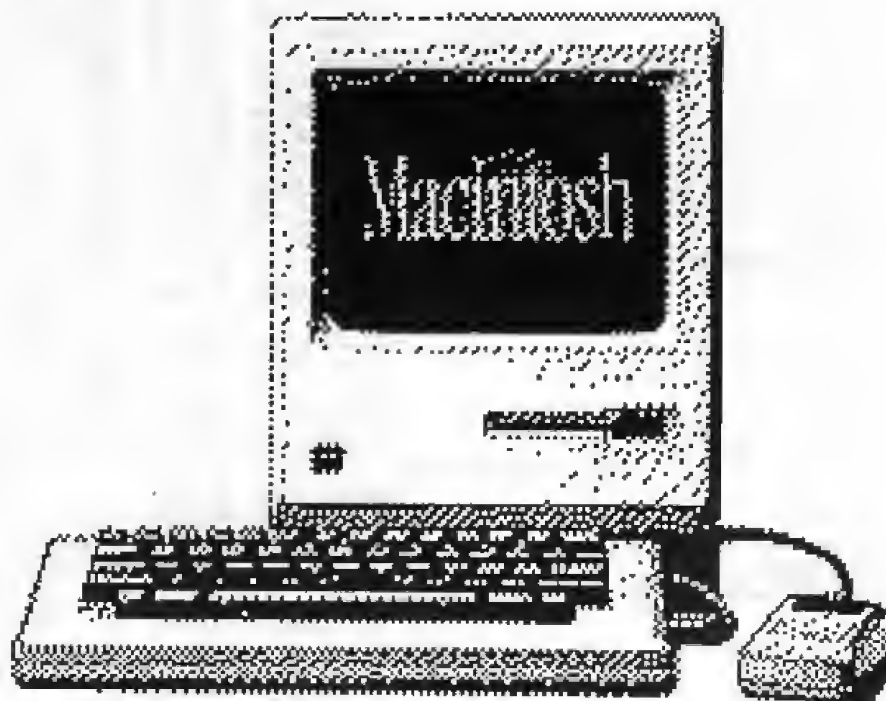
An anonymous FTP (effectively a Guest account with public password or none), would proceed something like the following. (The dialogue may vary slightly depending on the implementation of FTP you are using).

Connect to the host machine :

```
%ftp 128.174.5.50
Connected to nic.ddn.mil
220 NIC.DDN.MIL FTP Server
5Z(47)-6 at Wed 17-Jun-87 12:00
PDT
Name (nic.ddn.mil:myname): anonym-
```

```
ous
331 ANONYMOUS user ok, send real
ident as password.
Password: mynam
230 User ANONYMOUS logged in at
Wed 17-Jun-87 12:01 PDT, job 15.
```

```
Request the file :
ftp> get netinfo:nug.doc
200 Port 18,144 at host
128.174.5.50 accepted.
150 ASCII retrieve of
<NETINFO>NUG.DOC.11 started.
226 Transfer Completed 157675 (8)
bytes transferred
local: netinfo:nug.doc
```



```
remote:netinfo:nug.doc
157675 bytes in 4.5e+02 seconds
(0.34 Kbytes/s)
ftp> quit
221 QUIT command received.
Goodbye.
```

#### Note :

If using NCSA Telnet or tn3270 on a Mac, it is necessary to first perform a telnet session and log onto the NIC host, then to FTP back to your Mac.

#### Domain Names [RFC1034]

The domain name system was introduced to overcome the problems with managing the addresses of the various hosts. Host name to address mappings were maintained by the Network Information Center (NIC) in a single file (HOSTS.TXT).

As the number of hosts increased this file grew, each host would periodically obtain a copy (via FTP) in order to be current. The overhead imposed on the NIC / Internet in the distribution of this file would grow proportional to the square of the number of hosts in the Internet. Organisations administering their own machine names would have to wait for the NIC to change HOSTS.TXT to make changes visible to the Internet at large.

The domain name was born. It consisted of a hierarchical name space, with hierarchy roughly corresponding to organisational structure. The domain names composed of names with the '.' used to mark the boundary between the names.

Domain names are of the form A.B.C.D where:

- domain A is sub-domain of the domain B.C.D
- domain B is sub-domain of the domain C.D
- domain C is sub-domain of the domain D
- domain D is sub-domain of the domain "\*" - the Internet

The highest domains (" ") are of the form :

- "" - USA
- uk - United Kingdom
- au - Australia

The domains (D) are of the form :

- EDU - Educational
- MIL - Military
- COM - commercial
- GOV - Government

eg :

calgulla.comms.a2000.com.uk

This equates to the host calgulla within the comms network of the company a2000 in the uk. Possibly my mac if an affordable Internet were in place in the uk.

Organisations are responsible for maintaining their own domain names and making this information available to the Internet community via Domain

Name Services operating on the Organisations gateway to the Internet.

#### SMTP [RFC821]

Simple Mail Transfer Protocol is a service which allows reliable transmission of mail. This allows a user to send mail to another user on a remote system, in conjunction with the domain names system the remote user could be anywhere in the world, eg :

stevep@calgulla.comms.a2000.com.uk

The user stevep at the host calgulla within the comms network of the company a2000 in the uk (imaginary at present).

76224.211@Compuserve.com - Ewen Wannop on Compuserve (Actual)  
BASUG.1@Applelink.apple.com.uk - Apple 2000 at Applelink (possibly !)

#### Mail Servers

A mail server is a system capable of sending and receiving mail which has an automatic answering system in place. Normally this automatic answering is performed by some form of batch process that is scheduled to run periodically, and process any mail sent to a specified account.

An example of a mail server is the Mail server SERVICE at NIC (Network Information Center); simply send a mail memo to the user SERVICE@NIC.DDN.MIL, and in the subject field enter the 'help' or 'RFC821', in which case help on using the mail server or RFC821 will be forwarded to you from the user SERVICE-REPLY@NIC.DDN.MIL.

#### Where does the Mac fit into the picture

When Apple provided the MacTCP (Macintosh TCP) communications toolbox, Apple provided to the development community with a built in TCP/IP capability. MacTCP allows TCP/IP to be sent out over a directly connected ethernet interface, or alternatively it can be sent out over AppleTalk.

At present no full Internet capability is built into the Mac, although Apples Unix (A/UX) has full support. Various third party products exist, including some excellent public domain software.

#### MultiPORT

The MultiPORT is an AppleTalk to EtherTALK gateway that connects four AppleTalk networks to a single Ethernet network. Additional MultiPORTs can be connected to provide additional AppleTalk to EtherTALK connection.

The MultiPORT also acts as a gateway to MacTCP running over the AppleTalk bridging it onto Ethernet as TCP/IP. This provides the ability to have a large number of Mac's connected to the Internet via a single gateway, removing the need to have an

Ethernet card on each Mac (along with the expensive wiring necessary). The MultiPORT also allows the Mac's to connect to a VAX which is running PathWORKS and use the VAX as an Apple file server.

In system 7 every Mac can be an Apple file server, but unless the Mac is on ethernet performance of the Mac is severely impacted. By using the MultiPORT as an AppleTalk to EtherTALK gateway it is possible to have a Mac using system 7 as Apple file server running on EtherTALK servicing four AppleTalk zones.

#### NCSA Telnet for the Mac(public domain)

NCSA Telnet is a product developed by the NCSA in the USA, basically it allows a telnet (VT100) session over TCP/IP to connect to any suitably connected TCP/IP host. NCSA telnet allows up to 8 simultaneous sessions to be established to any host.

NCSA Telnet also provides a client FTP server for file transfers.

#### tn3270 for the Mac(public domain)

tn3270; similar to NCSA telnet. tn3270 differs from NCSA telnet in that it allows only one connection using the IBM 3270 display protocol rather than a VT100 terminal emulation.

#### PR (PacketRadio)

This is an X.25 like network run over HAM radio frequencies world wide, there is a gateway to the Internet. It's full potential I doubt is realised by the majority of it's users.

#### Conclusions

Who's going to be the first company to provide a Gateway onto the Internet from AppleTALK using a cheap modem connected to an Amateur Radio band Transceiver ???

Think about it, everybody who has a mac could have a public write only folder, public read only folder using system 7. Low running costs, just the initial purchase price of the Gateway and Radio Transceiver along with a low cost subscription to a Gateway for the Internet.

#### Next Article

Depends upon the response provoked by this article.

Stephen Pickering



□ Well now, if you are fascinated, intrigued or just want to know more. Please let us know and we can ask Stephen for a sequel to his article! Ed.

# Library II GS Update

□ Please note that the directories of the four Technical Note disks and the two Font disks have been concatenated to save space.

□ The four Technical Notes disks (IIGS.50 to IIGS.053) are the complete set of Apple II and IIGS Technical Notes as issued by Apple Cupertino.

## /IIGS.050/ A2TN.85.90.1

-TN.ABOUT.90.11	TXT	41	27-FEB-91
-TN.INDEX.90.11	TXT	105	27-FEB-91
*AIIC	DIR	1	8-MAR-91
-TN.AIIC.001-009	TXT	13	23-JAN-90
*AIIE	DIR	1	8-MAR-91
-TN.AIIE.001-009	TXT	5	21-APR-89
-IIGS.001.050	DIR	4	8-MAR-91
-TN.IIGS.001-050	TXT	37	4-JAN-89
-READ.ME	TXT	3	8-MAR-91

## /IIGS.051/ A2.TN.85.90.2

-IIGS.051.097	DIR	4	8-MAR-91
-TN.IIGS.051-097	TXT	17	21-SEP-90
*GSOS	DIR	2	8-MAR-91
-TN.GSOS.001-013	TXT	65	21-SEP-90
*ATLK	DIR	1	8-MAR-91
-TN.ATLK.001-009	TXT	11	3-APR-90
*IMWR	DIR	1	8-MAR-91
-TN.IMWR.001	TXT	6	15-DEC-88
*MEMX	DIR	1	8-MAR-91
-TN.MEMX.001	TXT	12	15-DEC-88
*MOUS	DIR	1	8-MAR-91
-TN.MOUS.001-007	TXT	9	15-DEC-88
*MISC	DIR	2	8-MAR-91
-TN.MISC.001-017	TXT	12	15-DEC-88

## /IIGS.052/ A2.TN.85.90.3

*PDOS	DIR	3	8-MAR-91
-TN.PDOS.001-029	TXT	8	15-DEC-88
*SMPT	DIR	1	8-MAR-91
-TN.SMPT.001-009	TXT	6	23-JAN-90
*UDSK	DIR	1	8-MAR-91
-TN.UDSK.001-005	TXT	6	15-DEC-88
*PASC	DIR	1	8-MAR-91
-TN.PASC.004-017	TXT	5	15-DEC-88

## /IIGS.053/ A2.FTN.85.90.4

*FILE.TYPE.NOTES	DIR	5	8-MAR-91
-FTN.XX.XXXX	TXT	7	3-APR-90
-FTN.ABOUT.90.11	TXT	44	11-JAN-91
-FT.ASSIGN.FORM	TXT	7	20-JUN-90
-FT.LETTER	TXT	8	20-JUN-90

## /IIGS.054/ Fonts

-FONTS	DIR	8	16-JUL-91
-CIRCUS.36	SC8	24	4-NOV-87
-ANTRIPA.24-48	SC8	18	7-DEC-87
-APPLE.II.9-36	SC8	7	16-NOV-87
-ASCHAM.9-12	SC8	5	1-SEP-87
-ASIMOV.12-24	SC8	4	7-DEC-87
-AUSTIN.ECON.9-24	SC8	8	12-JUN-87
-EANNER.IT.24-48	SC8	16	1-SEP-87
-BONNINGHAM.6-12	SC8	10	16-NOV-87
-BORDERS.12-24	SC8	5	16-NOV-87
-BOUTON.24	SC8	21	12-JUN-87

-CACTUS.DECO.18-36	SC8	7	1-SEP-87
-CACTUSDELUXE.48	SC8	17	4-NOV-87
-CALDON.12-24	SC8	7	16-NOV-87
-CALLIGRAPHY.24-72	SC8	11	12-JUN-87
-CAMELOT.12-24	SC8	7	1-SEP-87
-CHADWELL.8-48	SC8	6	8-DEC-90
-CHAUCER.24	SC8	10	16-NOV-87
-CIRCUS.12-24	SC8	7	4-NOV-87
-EPSILON.36	SC8	32	4-NOV-87
-EVRAIN.12-2	SC8	21	16-NOV-87
-EPSILON.12-24	SC8	18	4-NOV-87
-EIRE.12	SC8	9	4-NOV-87
-DYLAN.THOMAS.18	SC8	6	7-DEC-87
-DOVERFIELD.12-24	SC8	21	16-NOV-87
-DOVER.8-12	SC8	5	1-SEP-87
-D.MOINES.10-24	SC8	21	4-NOV-87
-CRANSTON.24	SC8	10	16-NOV-87
-FLASH.9-24	SC8	6	16-NOV-87
-FINSTER.24-48	SC8	64	7-DEC-87
-FINE.PRINT.6-12	SC8	5	16-NOV-87
-HEBREW.18	SC8	8	12-JUN-87
-HARDIN.12-24	SC8	22	16-NOV-87
-GREEK.12	SC8	7	12-JUN-87
-GHARST.6-24	SC8	5	16-NOV-87
-GARAMOND.12-24	SC8	8	3-MAY-90
-INTIGUEL.12-24	SC8	16	16-NOV-87

## /IIGS.055/ Fonts

-FONTS	DIR	6	16-JUL-91
-VANCOUVER.18	SC8	11	12-JUN-87
-WYLIE.12-24	SC8	16	16-NOV-87
-WAUGH.12-24	SC8	7	7-DEC-87
-UNCIAL.18	SC8	7	12-JUN-87
-TWO.TONE.640.48	SC8	35	7-DEC-87
-TOMBSTONE.24	SC8	9	12-JUN-87
-TIFFANY.12	SC8	9	12-JUN-87
-TEMLEY.24	SC8	10	16-NOV-87
-SPACE.18-36	SC8	24	7-DEC-87
-SMALLVILLE.8-16	SC8	5	16-NOV-87
-SHAKESPEARE.14-28	SC8	34	16-NOV-87
-RUSSELL.24	SC8	20	16-NOV-87
-RESTON.24	SC8	10	16-NOV-87
-RANSOM.24	SC8	14	16-NOV-87
-QUENTLY.9-18	SC8	8	16-NOV-87
-PHANTOM.24-48	SC8	64	7-DEC-87
-OVERSCAN.12-24	SC8	23	16-NOV-87
-OTTAWA.18	SC8	17	12-JUN-87
-NEWARK.24	SC8	38	16-NOV-87
-NASHVILLE.12-24	SC8	21	16-NOV-87
-MORSE.9-36	SC8	3	16-NOV-87
-MICHELANGELOC.18-36	SC8	47	16-NOV-87
-MICHELANGELO.C9	SC8	6	16-NOV-87
-MICHELANGELO.9-18	SC8	9	16-NOV-87
-MENDELTON.9-48	SC8	6	7-DEC-87
-ZAPF.CHAN.10-24	SC8	9	5-NOV-87
-ZAPF.DING.10-24	SC8	7	4-NOV-87
-UNCIAL.36	SC8	24	4-JUN-91
-MONO.8	SC8	4	8-JUL-90
-LANGLEY.9-36	SC8	15	16-NOV-87
-MEDICI.18	SC8	14	12-JUN-87
-JUNEAU.18	SC8	11	12-JUN-87
-JUNIPER.12-24	SC8	7	16-NOV-87
-KAPPA.BOLD.18	SC8	9	12-JUN-87
-KEYS.24	SC8	37	16-NOV-87
-KEYS.CD.24	SC8	20	16-NOV-87

## /IIGS.056/ Games

-GUADALCANAL	DIR	1	16-JUL-91
-DESCRIPTION	AWP	12	29-OCT-90
-FILE.SETUP.DOC	AWP	9	1-JUL-90
-GUAD.TOOLS	DIR	1	16-JUL-91
-DATA.TABLES	AWP	140	29-OCT-90
-GUADMAP.01	SC0	34	13-JUN-89
-GUADMAP.02	SC0	31	13-JUN-89
-GUADMAP.03	SC0	11	13-JUN-89
-GUADMAP.04	SC0	27	13-JUN-89
-GUADMAP.05	SC0	35	13-JUN-89
-GUADMAP.06	SC0	13	13-JUN-89



-GUADMAP.07	\$C0	29	13-JUN-89
-GUADMAP.08	\$C0	30	17-JAN-91
-GUADMAP.09	\$C0	13	13-JUN-89
-GUADALCANAL	DIR	2	16-JUL-91
-CORE0	BIN	7	16-SEP-90
-GUADMAP	BIN	17	15-MAY-88
-MOD1	BIN	29	31-OCT-90
-MOD1A	BIN	19	16-SEP-90
-MOD2	BIN	21	31-OCT-90
-MOD3	BIN	30	16-SEP-90
-MOD4	BIN	21	9-SEP-90
-MOD5	BIN	25	24-JUN-90
-MOD6	BIN	24	3-JAN-91
-SHPNAM	BIN	7	24-JUN-90
-CAMPAIGN	\$F7	24	31-OCT-90
-EAST.SOLOMONS	\$F7	25	16-SEP-90
-GUADALCANAL	\$F7	25	16-SEP-90
-SANTA.CRUIZ	\$F7	25	16-SEP-90
-GC.SYSTEM	SYS	13	31-OCT-90
-GUADALCNL.ICON	\$CA	14	30-JUN-90
-STARTUP	BAS	1	24-OCT-89
-USERGUIDE.DOC	AWP	181	29-OCT-90
-ARKII.TXT	TXT	3	19-NOV-90
-ROMULAN.GS	DIR	1	16-JUL-91
-ROMULANS	\$B3	61	16-AUG-89
-EXPLOSION	BIN	33	15-JUL-89
-PHASER	BIN	33	15-JUL-89
-PHOTON.TORPEDO	BIN	33	15-JUL-89
-ROM.READ.ME	TXT	4	16-AUG-89
-PURITY.STACK	DIR	1	16-JUL-91
-PURITY.TEST	DIR	1	16-JUL-91
-PURITY.STACK	\$55	389	14-JUL-90
-PURITY.Scores	\$55	13	14-JUL-90
-HS.TEST.RESULTS	TXT	1	9-JUL-90
-READ.ME	TXT	3	14-JUL-90

## /IGS.057/ Games

-HYPERHEART	\$55	359	14-MAY-90
-MUSIC.HISTORY	DIR	2	16-JUL-91
-BAROQUE	TXT	3	15-JAN-90
-CLASSIC	TXT	1	15-JAN-90
-IMPRES	TXT	1	15-JAN-90
-LAST.WORD	TXT	5	18-JUL-90
-LATE.ROMANTIC	TXT	1	15-JAN-90
-MODERN	TXT	3	15-JAN-90
-MUSIC.HISTORY	\$55	174	18-JUL-90
-NEO	TXT	1	15-JAN-90
-POST.MOD	TXT	1	15-JAN-90
-READ.ME	TXT	1	18-JUL-90
-REN	TXT	1	15-JAN-90
-ROCOCO	TXT	1	15-JAN-90
-ROMANTIC	TXT	3	15-JAN-90
-TUNE.STACK	DIR	1	16-JUL-91
-HOME.STACK	\$55	12	25-MAY-90
-HYPERTUBES	\$55	164	17-MAY-90
-CHEM.REF.STACK	DIR	1	16-JUL-91
-CHEMREF.STACK	\$55	218	11-SEP-90
-HS.XCMD	\$BC	1	18-OCT-89
-VARIFINDER	DIR	1	16-JUL-91
-VARIFINDER.1	\$55	213	26-SEP-90
-VF.CABOOSE	\$55	94	25-SEP-90
-VF.DOCS.AWP	AWP	24	26-SEP-90
-VF.DOCS.TXT	TXT	22	26-SEP-90
-VF.MICRO	\$55	29	26-SEP-90
-AMER.FOODS	\$55	138	28-MAY-90

## /IGS.058/ HyperCard GS

-DISNEY.STACK	\$55	1583	23-OCT-90
---------------	------	------	-----------

## /IGS.059/ HyperStudio

-HS.CLIP.DOC	TXT	3	31-AUG-89
-ANIMALS	DIR	1	9-MAY-90
-ANIMALS.1	\$C0	25	27-JUL-89
-ANIMALS.2	\$C0	24	27-JUL-89
-ANIMALS.3	\$C0	19	27-JUL-89
-ANIMALS.4	\$C0	19	27-JUL-89
-ANIMALS.5	\$C0	23	27-JUL-89

-ANIMALS.6	\$C0	20	27-JUL-89
-ANIMALS.7	\$C0	16	27-JUL-89
-ANIMALS.8	\$C0	20	27-JUL-89
-ZOO	\$C0	18	19-AUG-89
-CARTOONS	DIR	1	17-JAN-90
-CARTOONS.1	\$C0	20	27-JUL-89
-CARTOONS.2	\$C0	20	27-JUL-89
-CARTOONS.3	\$C0	22	27-JUL-89
-CARTOONS.4	\$C0	24	27-JUL-89
-CARTOONS.5	\$C0	18	27-JUL-89
-CARTOONS.6	\$C0	21	27-JUL-89
-CARTOONS.7	\$C0	22	27-JUL-89
-CARTOONS.8	\$C0	20	27-JUL-89
-CARTOONS.9	\$C0	22	27-JUL-89
-PEANUTS	\$C0	21	20-AUG-89
-TRANSPORTATION	DIR	1	9-MAY-90
-AIRCRAFT	\$C0	12	14-AUG-89
-TRAINS.2	\$C0	13	16-AUG-89
-TRANSPORT	\$C0	16	3-AUG-89
-TRANSPORT.2	\$C0	14	17-AUG-89
-TRANSPORT.3	\$C0	15	17-AUG-89
-TRANSPORT.4	\$C0	19	21-AUG-89
-FOOTBALL	DIR	1	9-MAY-90
-FOOTBALL.1	\$C0	20	27-AUG-89
-FOOTBALL.2	\$C0	20	27-AUG-89
-FOOTBALL.3	\$C0	20	27-AUG-89
-FOOTBALL.4	\$C0	22	27-AUG-89
-FOOTBALL.5	\$C0	20	27-AUG-89
-FOOTBALL.6	\$C0	20	27-AUG-89
-FOOTBALL.7	\$C0	21	27-AUG-89
-FOOTBALL.8	\$C0	19	27-AUG-89
-BUILDINGS	\$C0	23	3-AUG-89
-HOUSEHOLD	\$C0	20	3-AUG-89
-HOUSEHOLD.2	\$C0	19	18-AUG-89
-JOBS	\$C0	21	3-AUG-89
-OFFICE	\$C0	18	20-AUG-89
-CARDS	\$C0	24	14-AUG-89
-FLAGS	\$C0	17	15-AUG-89
-MISC.1	\$C0	20	3-AUG-89
-MISC.2	\$C0	22	3-AUG-89
-SIGNS.1	\$C0	18	3-AUG-89
-SIGNS.2	\$C0	17	3-AUG-89
-SPORTS	\$C0	22	3-AUG-89
-SPORTS.2	\$C0	19	14-AUG-89
-MILITARY	\$C0	10	14-AUG-89
-MUSIC.1	\$C0	14	14-AUG-89
-MUSIC.2	\$C0	18	14-AUG-89
-NAUTICAL.1	\$C0	17	14-AUG-89
-NAUTICAL.2	\$C0	16	14-AUG-89
-SPACE.1	\$C0	17	12-AUG-89
-SPACE.2	\$C0	17	12-AUG-89
-COMPUTERS	\$C0	17	14-AUG-89
-FOOD.1	\$C0	17	14-AUG-89
-FOOD.2	\$C0	19	14-AUG-89
-FOOD.3	\$C0	18	14-AUG-89
-FOOD.4	\$C0	17	17-AUG-89
-FOOD.5	\$C0	19	21-AUG-89
-PLANTS	\$C0	21	14-AUG-89
-SEALIFE	\$C0	17	14-AUG-89
-FUNNY	\$C0	22	18-AUG-89
-FUNNY.2	\$C0	24	18-AUG-89
-FUNNY.3	\$C0	21	19-AUG-89
-SYMBOLS.2	\$C0	19	18-AUG-89
-TOOLS	\$C0	19	14-AUG-89
-TOOLS.2	\$C0	12	18-AUG-89
-TOOLS.3	\$C0	17	18-AUG-89
-PEOPLE	\$C0	24	15-AUG-89
-PEOPLE.2	\$C0	24	18-AUG-89
-PEOPLE.4	\$C0	26	21-AUG-89
-PLACES	\$C0	27	16-AUG-89
-PLACES.2	\$C0	26	18-AUG-89
-PLACES.3	\$C0	28	22-AUG-89
-TOYS	\$C0	18	27-AUG-89

□ All disks are available from PO Box 3, Liverpool, L21 8PY. Single disks are £4.00 each, ten disks for £35.00. Prices include VAT and Post and Packing.

# KansasFest

## Stop Press announcements from the A2-Central annual conference in Kansas

□ As we went to press the first reports were coming in on the wires from KansasFest. We hope to have fuller details by the September Apple Slices. These messages were all retrieved from the GENie online information service.

□ It is good news for the Apple IIs and the Apple //e and shows us that Apple Cupertino are still supporting these machines.

Message 11 Wed Jul 17, 1991

A2PRO.BRYAN [Visit A2U!] at 19:26 EDT

System 6.0 is cool. VERY cool. HFS FST does really exist. It does full read and write. It's cool. Would I lie (don't answer that)...

Finder 6.0 is really hot - I'm actually going to convert from ProSci-16 to Finder - it's that good. VERY fast, very powerful.

One thing I should mention: 6.0 is NOT officially announced. It is NOT going to be released this week. Hopefully we'll see it this fall.

Bryan

Message 13 Wed Jul 17, 1991

A2.DEAN [StackCentral] at 23:44 EDT

Yes, System 6.0 is real, yes it's awesome, yes it has an HFS FST (as well as DOS 3.3 and Pascal FSTs), tons of new features, even MORE speed, and a really really really improved Finder.

Message 17 Thu Jul 18, 1991

A2.JEFFH [RTC Leader] at 20:37 EDT

We eventually moved to NOMDA, where Roger Wagner started it all with describing all the new features in HyperStudio 3.0. You can edit buttons now, it supports both 640 and 320 modes, its using resources everywhere, and it even will allow scripting!

After a break and some hardware problems with a hard disk, Tim Swihart talked about 6.0...apparently it is about to go alpha, with final shipping late fall (hoping for October). I'm sure I'm going to forget something here, but I'll just start listing things. The Finder was totally cool, tons of changes.

Full read/write HFS FST, read-only DOS 3.3 FST, and read-only Pascal FST.

Two new applications: Teach (editor that can import AppleWorks, AWGS, & MacWrite files) oh, and it supports the styled Teach format, of course.

Archiver is their new backup program that has a host

of options for selecting files. It can backup to a volume or a single file. They talked about some new support for resources, the Finder will now use ricon and rComment resources. rBundle is a new resource format that will let the Finder know which icons go with which Applications/documents and what documents go with which applications.

Lots of speedup in the OS, but not as much as we saw from 4.x->5.x system versions. The Console Driver has been redone, and there are new hooks to get direct access to character output and input routines.

Lots of new tool calls and updates. There is a SysBeep2 call that allows you

to specify which sound file to play for specific events. Some other neat things include a disk full of fonts up to 96 pt! These fonts help ensure that the StyleWriter printer driver has the best output possible.

There are drivers for Apple's flatbed scanner and tape drive too.

One really neat thing is that the Installer is completely revamped and is VERY intelligent now (that means there's absolutely no reason not to use it :-

SSW 6.0 will be shipping on 5 (count 'em, f i v e) disks. The first disk boots to the installer, from there it's a SINGLE mouse click to update your system! Disks 2 & 3 contain the SSW, the fourth is the fonts, and the last disk is configured to boot from an 800K disk drive. Hardware...

Continuing the trend, Apple has made networking much better, there'll be an Ethernet card allowing quicker networks. The SuperDrive card will allow us to use the 1.6Meg disks, as well as accessing MACHFS disks. Both of these cards will run on an enhanced Apple IIe. There's also a new ProDOS-8 (v2.0) which will allow more than two devices per slot! Up to a max of 14. There is a sacrifice for this though - it requires a 65c02 at least (shouldn't be much of a problem since the SCSI card also requires a c02).

Bryan (and that Jeff guy too :)

Message 20 Thu Jul 18, 1991

LUNATIC at 21:58 EDT

Some of Finder's new features:

A "Windows" menu that allows you to select windows that are hidden under other windows.

The "About..." item now displays a modeless dialog with memory counts (Finder, NDAs, free, max block) that is updated every 15 seconds.

The title of a window can be clicked on and a list of folders drops down so you can select directories previous to it.

Option-clicking in the close box of a window closes all windows (just like the Mac Finder).

Option-clicking open a folder closes the window you clicked in after opening the new folder.

Options can be set to suppress the size, type, creation date and/or modification date in a window when files are displayed in list format.

The info bar now expands to double-height when files are displayed in list format, so that you can still see the disk memory use display.

The info bar now displays the file system of the file in the window. It also displays sizes in megabytes when they are more than 999K.

Folders can now (legally) be placed on the desktop.



Message 28 Fri Jul 19, 1991

A2.DEAN [StackCentral] at 01:15 EDT

Everything at the conference is actually an official announcement, though none of it is available yet.

The new drive is a 1.4 meg drive, not a 1.6 meg drive. When asked about an MS-DOS FST, Apple employees told us that such a thing was technically feasible. They said that it seemed like a logical thing to do, but they could not comment on whether or not they were doing one. An MS-DOS FST definitely will not be a part of System 6.0.

The new version of Hypercard IIgs appears to be way cool. It should come out later this year, but no promises. I don't personally know more about that, at least not enough to comment on coherently. Maybe someone else can come along and tell us more about it.

Message 32 Fri Jul 19, 1991

K.FLYNN at 03:49 EDT

What I can remember from KF that hasn't been said? Well...

With Sys 6.0:

- The version number of the system now shows up on the splash screen. No more guessing what version of system software you are running!
- Disk insertions are now detected by the system and you no longer have to press return when GS/OS is asking you for a disk. Just put it in!
- The old Program Launcher has been made a part of GS/OS and will be executed if there are no more programs to run when an application quits instead of reexecuting the same program.
- BASIC Launcher has been built into GS/OS and P8. I guess BASIC System now checks the Message Center itself for a startup file.
- The control panel works more like System 7 on Mac in that each Control Panel (not CDev anymore) comes up in its own window as if it were a DA or something. Among other things, this means that authors will have more room available for their controls because the windows can be larger.
- The Time CDev...er, uh, Control Panel has been redone. No more popup menus with 0 - 59 seconds!
- Some Control Panels have been consolidated (most of the AT printer CDevs are now incorporated into the Net Printer Control Panel; Mouse and something else that I can't remember were put into the General Control Panel).
- Universal Access on ALL GS's, not just ROM 03: CloseView - Magnifies the screen up to 12 (or is it 24) times. Video Keyboard - Same as what you type on, except it is on the screen and you use some other pointing device (such as the mouse) to "type" on it, and Easy Access - allows for one finger typing of multi-key combinations by making the modifier keys "sticky" and for emulation of the mouse from the keypad.
- There are eight Preferences options under Finder: four to control what shows up in list views of Finder's windows (FileType, Date/Time, Size, and a double height Info Bar to allow Volume statistics to show up), and four general options (Color Icon's background, Show Invisible files, Check the 5.25" drive on Finder Startup, and Save Finder Info).
- Finder's Cleanup command has been greatly sped

up. No more going out for pizza while Finder counted the files in your Font folder... unless, of course, you are like some people [unnamed] that have thousands of files in it! [grin].

- Scrolling in List views has been sped up by a factor of ... well, a lot

[end of memory playback]

Kev

Message 39 Fri Jul 19, 1991

A2PRO.BRYAN [Visit A2UI] at 19:20 EDT

I'll try to answer as much as I can...

No fast serial drivers, nothing about slot arbitration, opening large folders is MUCH faster, tear off menus and h-menus are not part of SSW - but they will be a tad easier to implement.

Nothing about the IWLQ driver - didn't know that there was anything wrong with it.


Yes, there is a new HyperCard IIgs - there is an overall speed improvement, and much more, but I'm not a Hyper dude, so I didn't really pay that much attention. Scripts now have a filetype and can be double clicked upon from the Finder.

There's just way too much new/changed stuff to try to cover it here. Dave's motto is, "there's a flag for that". :-)

As of Monday there was NOT a "SFGGetDirectory" call - but Dave agrees that it would be useful, so who knows.

Bryan





## COMPUTER DOWN!

### EXAMPLES

ALL INCLUSIVE PRICES

APPLE II + //e, //c	
Power Supply .....	£35
APPLE II + //e, //c	
Motherboard .....	£35
Apple Interface Cards (most makes) .....	£28
Disk Drive - repaired cleaned & aligned .....	£28

Please ring for other repair prices or send equipment for free estimate  
Quantity Discounts available

- FAST TURNROUND - NORMALLY 2 - 4 DAYS
- 3 MONTH WARRANTY
- TRADE ENQUIRIES WELCOME
- MOST MAKES OF COMPUTER, MONITOR, PRINTER e.g. IBM, TANDON, SINCLAIR, COMMODORE, OPUS, CLONES, EVEN PERSONAL COMPUTERS !

WE WILL NOT BE BEATEN ON PRICE • TRADE ENQUIRES WELCOME

## COMTEC

UNIT G, SUNDERLAND HOUSE, SUNDERLAND STREET  
MACCLESFIELD, CHESHIRE. SK11 6JF  
TEL: (0625) 434691



# The Nibbler Speaks



□ Do you support your local User Group? These groups run independently from Apple2000, though in the main are run by Apple2000 members. Many of these local groups are actually held on the premises of a local Apple dealer. This says a great deal for the enthusiasm of the dealers and their staff.

Attending a local group gives you direct feedback with other users. You can solve problems, preview software and hardware and generally have a good Apple time!

I attend the BAUD local group in Bristol which has been running continuously for as long as Apple2000! This is also true of many of the strong local groups. Apple enthusiasts tend to stay enthusiasts once converted!

Jim Leecy of the Northwest Apple Computer Club has sent me a most impressive information pack about their local group up near Warrington (I suppose it is just coincidence that the local football team is known as The Wires!). It gives us a history of the group, a profile of the committee, a timetable of the monthly meetings and much more. If you live in that area and have not already been to one of the meetings, call Jim Leecy on 01691 409111 for further information.

The Cambridge Apple User's Group meets every fortnight. They publish a newsletter and can be contacted through Ian Archibald on 01223 301111.

□ Computers are not very green things and it is not easy to be environmentally conscious by using them. They consume oil in vast quantities in making all that plastic, and the amount of copper, nickel and gold inside the case is frightening to contemplate.

Our printers spew out vast quantities of paper, even though we are constantly told the computer will bring the paper-less office!

In the early days we were told that we could not use just any old paper in our printers and that we needed only the highest quality to achieve good results.

Re-cycled paper is now big business. Perhaps you thought that recycled paper was that grey newsprint that we keep seeing these days. I have just received a sample pack of papers produced by Conservation Papers Ltd. These have changed my whole idea of what recycled paper is. There is a complete range of papers in all colours and styles. The only way I could tell they were re-cycled was that the information pack told me so.

Letter quality paper, continuous form paper, sprocket feed paper they do them all.

If you want to be computer green, call Conservation Papers Ltd. on 0734 668611 or Fax them on 0734 351605. They will give you the address of your nearest stockist. By the way they actually make a green coloured paper as well!

□ A recent experience of a member has shown us the problems that can arise when ordering software for the Apple II. Many of the titles that you find advertised might be out of stock items that are now in limited supply. He ordered a certain package that was advertised at a bargain price. On enquiring he was told on the phone that this item was in stock. After some delay he enquired how the order was progressing. He was then told that delivery would be extra and that he would get delivery very soon. After a further delay he found out that the item was actually now unavailable. In the end he got his money back, but he felt he had not been treated well and so he will not deal with that company again.

If you are ordering software or hardware which might possibly be no longer manufactured it would be wise to get a quote in writing from the dealer giving the actual cost, an estimated delivery date and an agreement that your money will be refunded if delivery cannot be achieved by that date. If the item then turns out to be out of stock you will be able to get re-dress without any further problems. It seems that a phone call is not enough and you must have things in writing!

□ MGA have at last issued their Update GS Catalogue of products for Apple IIs. If you have not already got your copy, either write to MGA or phone them on 0797 226601 or even Fax them on 0797 226721.

□ Fonts are big business in the Macintosh world. If you own a LaserWriter NT or an ImageSetter, you will need PostScript outline fonts when you start to print. The new TrueType fonts are excellent when it comes to printing to the StyleWriter, DeskWriter or LaserWriter SC but are not a substitute for the real thing when it comes to proper typesetting.

Thankfully PostScript fonts can exist happily side by side with TrueType under System 7.0!

When you come to scan the range of fonts available you will find that there are three main publishers even though some of their fonts may turn up in the guise of another manufacturers name! Linotype, Monotype and Bitstream are the three main suppliers. Linotype fonts can also turn up under the Adobe and Agfa banner.

If you are thinking of buying a range of faces it makes sense to approach only one supplier. FontWorks UK supply all the major faces and also have their own range of specialist faces as well. You can contact FontWorks on 071 490 5390 or Fax them on 071 490 5391. Their address is FONTWORKS UK, 65/69 East Road, London, N1 6AH. If you talk to them nicely they may even send you a sample demonstration disk of fonts as well.

□ Apple2000 has been loaned a Hewlett Packard DeskWriter to evaluate. Ewen will be giving a full review in the October Apple2000 but in the meantime has let me take a quick look at it.

I was most impressed with the results. The DeskWriter is basically a DeskJet but with an added AppleTalk connection in addition to its direct connection. It is a non-Postscript printer which puts it on a direct par with the StyleWriter. Like the StyleWriter it uses an ink-jet process and so is very quiet in operation. The resolution is excellent at 300 dpi and for many purposes looks actually rather crisper than a LaserWriter.

The main limitation of both these printers is that they do not support outline Postscript fonts or true Postscript drawing. The font problem is easily overcome by using Adobe Type Manger to draw the outline fonts or by using TrueType fonts under System 7.0.

It is faster than a StyleWriter and can handle more paper in its paper tray. At around the same price as the StyleWriter it is a very real alternative. The only drawback seems to be its rather larger footprint on the desk.

You can normally see the DeskWriter in operation at Bidmuthin and other dealers.

□ If you have purchased System 7.0 or have received HyperCard 2.1 with your new Mac, you are limited to Browsing only. This is a deliberate policy of Apple to limit the use of HyperCard until the user has the complete set of manuals for HyperCard. However, many of you may already have these manuals and would like to start working with HyperCard 2.1 straightaway. Thanks to Mike Dawson for the following conversion details:

### Converting HyperCard 2.1

When upgrading to System 7 it is necessary to also upgrade HyperCard from version 2.02 to 2.1. Now when you run version 2.1 you will quickly discover that it appears to be another of Apple's "cut down versions". This is not so and if you follow the instructions below then you can have a fully functional HyperCard 2.1 including level 5 scripting.

### Conversion Instructions

- [1] Double click on the new "Home Stack" to launch HyperCard.
- [2] Type from the keyboard the command key sequence CMD-4 or alternatively pull down the "GO" menu and select the last card. This should be the preferences card.
- [3] Type CMD-M to open the message box
- [4] Type the following into the message box:

'set userLevel to 5'  
and then press the return or enter key. The menus at the top of the screen will now expand and new items such as Style and Fonts should be evident.

- [5] Go to the TOOLS menu and select the Button tool.
- [6] Now look above the userlevel 2 arrow to the bottom left of the card. Above this will be a button. Double click in the area above the userlevel 2 to select it and open the information box. The button should be called "Userlevel Cover 1"
- [7] Click the "OK" button or hit the return key to close the information box. Now hit the backspace or delete key. The other three userlevels (i.e. 3, 4, and 5) should now be visible
- [8] To the right of the now visible userlevels there should be the outline of another hidden button. When you have found this double

click on this to again open the information box. This button should be called "UserLevel cover 2".

- [9] Click the "OK" button or hit the return key to close the information box. Now once again hit the backspace or delete key to remove the button. The Power User and Blind typing options will now be available but not visible as yet.
- [10] Finally hit the TAB key or select the browse tool from the Tools pull down menu to return HyperCard to the normal user interaction mode.
- [11] Congratulations you now have a fully operational copy of HyperCard.

### The Nibbler



Apple II Clearance Software	
<b>Vicom</b>	<b>£39.99</b>
UK communications program that does everything you'd expect as well as connecting efficiently to Funtel & other ViewData-type services.	
<b>Writer/File Pak</b>	<b>£9.99</b>
Useful disk containing Letter Writer, a simple word-processing type program; Mail List, Phone List, and Labeler. The labeler is the cheapest and easiest program we've come across for producing quick text labels as one-offs, or in multiples. Just type in what you want on the label, specify how many copies, the go!	
<b>The Write Choice</b>	<b>£39.99</b>
Great word-processor for 64K Apple IIx. Runs on II+ with Sup'R Term or VideoTerm, or IIec. Includes touch-typing module on reverse of disk.	
<b>Zoom Graftix</b>	<b>£14.99</b>
Prints bit-maps to your printer.	
<b>SuperMacroWorks</b>	<b>£29.99</b>
Customise your AppleWorks v2 to save time on repetitive tasks.	
<b>MacroWorks</b>	<b>£24.99</b>
As above for AppleWorks v1. (v2 & v3 users should use TimeOut UltraMacros).	
<b>StatsEase</b>	<b>£39.99</b>
Statistical analysis system.	
<b>STAT</b>	<b>£29.99</b>
Spiral Track Analysis Tool for aligning Apple II disk drives.	
<b>StitchGrapher</b>	<b>£39.99</b>
CAD embroidery pattern program.	
<b>SuperPatch</b>	<b>£24.99</b>
Fixes and customisation routines for AppleWorks.	
<b>RAMup</b>	<b>£19.99</b>
Great utility to set up an automatic program launching system on your RAMdisk. Once loaded, your programs are automatically executable from the RAMup menu - no need to return to ProDOS each time and type in tedious parameters.	
<b>MouseDesk</b>	<b>£19.99</b>
Graphical User Interface for Apple IIec with ProDOS hard drive or 3.5" drive(s) & for RAMdisk. From Apple Computer, this GUI was the same as supplied with the early IIOS, but originally developed by a French company for the 800K 3.5" drive. Lets you format disks, and copy files/disks, and launch programs automatically from a user-created list. Makes your IIec look like a IIOS.	
<b>Geos</b>	<b>£39.99</b>
Like MouseDesk, GEOS is a GUI for the Apple IIec, but includes applications like word-processor etc...	
<b>GeoFile</b>	<b>£39.99</b>
Modern database for the GEOS environment.	
<b>GeoCalc</b>	<b>£39.99</b>
Modern spreadsheet for GEOS.	
<b>Record Master</b>	<b>£39.99</b>
Very extensive database for the price. Even works on a II+.	
<b>Graphic Images Vol.1</b>	<b>£29.99</b>
Great two-disk set of scanned clip-art in GS format on 3.5" disks for any GS application, or Publish It! 3/4. Add £10 if you want the files on 5.25" disks (some files may be too large to fit, but we haven't checked).	
<b>Deluxe Art Parts</b>	<b>£19.99</b>

More GS-type clip-art as above. (Add £5 for 5.25").

**Deluxe Seasons & Holidays** £19.99

More, as above

**Print Shop** £29.99-2

A second-user copy of the old 64K Print Shop which will work on a II+. Prints compliments slips, greeting cards, letterheads, signs, posters, banners, and T-Shirts (with special heat-transfer ribbon available at extra cost).

**Print Shop Graphics Library Disk 1** £9.99

**Print Shop Library Disk 2** £9.99-2

**Print Shop Holidays Library** £9.99-2

**Print Shop Lover's Utility Set** £19.99-2

Prints reference sheets for graphics, borders & fonts, plus some other useful Print Shop stuff.

**Prince** £19.99

Brilliant double hit-res graphics program which does great things like reverse printing (for T-Shirt printing with a heat transfer ribbon), and colour separation printing so you can produce full-colour output even on a single colour printer! (prints single colour separations, reverses the paper in the printer, then prompts you to change the single-colour ribbons for a four-stage colour print).

**Printrix** £49.99

Without question gives the highest quality output of any Apple II program. Actually a typesetter, Printrix will print your word-processor document (with embedded Printrix commands, much like TrueOut SuperFonts) using any of the included 10 fonts, or with any of the 250+ other available fonts in myriad styles & sizes. You may also incorporate Print Shop Graphics, letters screens and Graffiti, (created with Funtrix, Graffiti Painter and others). Fully supports colour printing and supports HP LaserJet type 300dpi printers, as well as 24-pin Epson LQ-type printers.

**Graph Master** £29.99

Business graphics program for producing pie charts, bar graphs, and line charts etc from your spreadsheet or database figures.

**Merlin Assembler** £39.99

Versatile DOS 3.3 assembly language programming system.

**Computer CheckUp** £19.99

Diagnostics system for checking out hardware faults in your IIec.

**LockSmith** £24.99

Probably the best bit-copier for the Apple II. Even copies things Copy II+ won't.

**MagiCalc** £39.99

Last one! The best spreadsheet ever produced for the II+, but works great on IIec. Can use extra memory cards in II+ or IIec.

**FormLetter** £14.99

Allows you to merge data with Super Text word-processor.

A few of the items in these two ads are second-user but in excellent condition, check when ordering if in doubt.

Note that unless asterisked\*, prices include VAT only, and our standard £3.00 p&p charge must be added to all orders.

### MGA SoftCat

AD TWO

Tel: 0797-226601 (fax: 226721)

prices include VAT

\* prices include p&p

A: where new prices

shown, the lowest price

is the Apple 2000 menu

has 1981 Y

Access/9 is accepted

sensible  
software  
since '79



# MacLine

WREN HOUSE • SUTTON COURT ROAD • SUTTON • SURREY • SM1 4TL • VAT No 452 3149 66

FAX 081 642 4621  
081 643 4626

Ⓜ means works with System 7.0  
no symbol simply means unknown at this time

## WORD PROCESSING

### WP APPLICATIONS

MacWrite II Ⓜ (powerful yet straightforward WP)	£150.00
Microsoft Word 4 Ⓜ (feature and function laden WP)	£185.00
Nisus 3.0 Ⓜ (hot WP with graphics, GREPS, macro language)	£215.00
Yasie (new low cost entrant to a crowded WP market)	£95.00
Vantage (full featured DA especially good at converting DB files)	£57.00
WordPerfect 2.0 Ⓜ (hot new version of famous PC WP)	£199.00
Write Now 2.2 Ⓜ (fast straightforward WP, a doddle to use)	£85.00
<b>WP UTILITIES &amp; AIDS</b>	
Aria Advantage Ⓜ (stand alone and DA outliner)	£79.00
End Note (bibliography database desk accessory)	£95.00
Expressionist 2 (create accurate equations from this DA)	£85.00
Grammatik 2.0 Ⓜ (comprehensive grammar checker)	£79.00
Inside Information (brainstorming tool associates words/ideas)	£79.00
Thunder 7 Ⓜ (competent spelling checker even works in Quark)	£59.00
Wordfinder (DA Thesaurus for any application)	£39.00

## DATABASES

### RELATIONAL

4th Dimension Ⓜ (heavyweight of the databases)	£495.00
Double Helix II Ⓜ (easier DB for starter programmers)	£350.00
FileForce Ⓜ (much easier to use and upgradable to 4D)	£175.00
Forbase-Mac 2 Ⓜ (last DB with great interface reads dBase)	£345.00
Omnia 5 Ⓜ (now much faster and more Mac-like interface)	£495.00

### FLAT

DAtabase Ⓜ (flat file DA for quick convenient access to data)	£75.00
FileMaker Pro Ⓜ (best flat file DB ever - everyone needs it)	£195.00
Pacorama (flat file DB, very powerful and very quick)	£195.00

### DEDICATED

C.A.T. 3.0 Ⓜ (salesman's dream, contacts activities time)	£325.00
Dynadox Ⓜ (remarkable tool for managing/printing contacts)	£89.00
QuickDex Ⓜ (if you don't have it you aren't living - DA rolodex)	£35.00

## BUSINESS

### SPREADSHEETS

Microsoft Excel 3.0 Ⓜ (leading spreadsheet, new features)	£225.00
One Shot Worksheet Ⓜ (if you don't need all that power)	£59.00
WingZ Ⓜ (amazing spreadsheet includes charting and script)	£245.00

### SPREADSHEET BASED SOLUTIONS

Power Macros for Excel Ⓜ (shows off Excel's macro language)	£49.00
Business Plan Toolkit Ⓜ (Excel budgeting and forecasting)	£69.00
Sales & Marketing Toolkit Ⓜ (comprehensive forecasting)	£110.00

### BUSINESS GRAPHS & CHARTS

Cricket Graph (original colour graphing tool for the Mac)	£110.00
DeltaGraph Ⓜ (powerful flexible graphing tool)	£95.00
KaleidaGraph (highly rated US graphing package)	£149.00

### SIMULATORS

Extend (powerful simulator with built-in language)	£320.00
STink (powerful straightforward simulator from Stella I/O)	£325.00

### INTEGRATED SOFTWARE

Desk (WP DB Spreadsheet Comms Paint Draw Secretary)	£195.00
Microsoft Works 2 Ⓜ (WP, DB, Comms, Draw, Spreadsheet)	£125.00
Microsoft Office Ⓜ (Excel, Word, PowerPoint, File, bundle)	£425.00
Microsoft Office CD ROM Ⓜ (as above)	£495.00

### PROJECT MANAGEMENT

KeyPlan (develop in outliner then zap you are in critical path)	£245.00
MacProject II Ⓜ (powerful yet straightforward and flexible)	£315.00
MacSchedule 2.5 (less heavyweight project scheduling)	£115.00

### ACCOUNTING

Crystal Accounts Ⓜ (highly rated small business package)	£265.00
MacMoney 3 UK Ⓜ (unbeatable home accounts and small biz)	£75.00
Ritz (powerful and comprehensive accts for smaller business)	£340.00

**READY FOR SYSTEM 7?**

**£35.00**

SIMM	1Mb SIMMs	£35.00
SM2B	2Mb SIMMs	£79.00
SM4MB	4Mb SIMMs	£140.00
SMFX	1Mb Mac IIFX	£39.00
SM4FX	4Mb Mac IIFX	£140.00
SMFX	LaserWriter II	£39.00
PORT1	1Mb Portable	£199.00
PORT2	2Mb Portable	£399.00
PORT3	3Mb Portable	£525.00

**MEMORY**

Path (best complete accounts package for the non aces filestore)	£345.00
<b>PRESENTATION</b>	
Cricket Presentz (established presentation software)	£275.00
More III Ⓜ (extensive outline/text/presentation capability)	£89.00
Persuasion 2.0 Ⓜ (high end presentations with outliner)	£295.00
PowerPoint Ⓜ (powerful intuitive easy presentations)	£109.00

## GRAPHICS

### PAINT & DRAW

Canvas 2 Ⓜ (high end draw/paint package very good at layers)	£190.00
Desk Paint 3.0 Ⓜ (very good DA paint and draw package)	£125.00
MacDraw II Ⓜ (easy to use yet powerful draw package)	£155.00
MacDraw Pro Ⓜ (now upgraded and hugely powerful)	£275.00
MacPaint II Ⓜ (the original Mac launcher)	£69.00
MacCheese Ⓜ (super cheap 32 bit colour paint tool)	£59.00
Oasis Ⓜ (marvellous new 24 bit colour mimics dials etc)	£495.00
Pixel Paint Professional Ⓜ (32 bit, the rest as above)	£375.00
SuperPaint Ⓜ (classic paint and draw software)	£130.00
Studio 1 Ⓜ (unique animating paint package)	£75.00
Studio 8 Ⓜ (full featured high end colour paint program)	£145.00
Studio 32 Ⓜ (32 bit version of the above, 5 mice MacUser)	£365.00
UltraPaint Ⓜ (knockout colour paint and draw program)	£125.00

### DARKROOM & RETOUCHING

ColourStudio Ⓜ (powerful retouching, free Shapes)	£895.00
Digital Darkroom Ⓜ (monochrome photo retouching)	£250.00
Image Studio Ⓜ (monochrome photo retouching)	£145.00
PhotoShop Ⓜ (current king of the photo retouching packages)	£665.00
Shapex Ⓜ (great special effects for ColorStudio)	£235.00

### CAD & MODELLING

Claris CAD 2.0 Ⓜ (straightforward powerful CAD)	£495.00
Generic CADD (popular US CAD package)	£325.00
Infiniti-D (heading the pack in modelling & rendering)	£695.00
MacRenderman (the best rendering tool for 3D images)	£545.00
MiniCad (mini CAD performance)	£435.00
Model Shop 2.0 Ⓜ (3D solid object modelling tool)	£445.00
Ray Dream Designer (3D modelling & rendering)	£595.00
Realize (new 3D solid object modelling tool)	£425.00
StrataVision 3D 2.0 Ⓜ (24 bit photo realistic rendering)	£345.00
Swivel 3D Pro Ⓜ (now supports 24 bit colour)	£355.00
Super 3D 2.0 (flexible colour 3D tool)	£325.00
Virtue Walkthrough (draw in 3D and fly through the model)	£695.00

### POSTSCRIPT GRAPHICS

Freehand 3.0 Ⓜ (PostScript drawing with text manipulation)	£315.00
Illustrator 3.0 Ⓜ (power PostScript text and layout ability)	£375.00
Streamline Ⓜ (best PostScript auto tracing tool)	£145.00

## DESKTOP PUBLISHING

### DTP APPLICATIONS

Creative2 Ⓜ (PageMaker and Freehand in one)	£695.00
DesignStudio Ⓜ (high end DTP program)	£475.00
FrameMaker Ⓜ (pro publishing also on UNIX and NEXT)	£750.00
Multi Ad Creator (specialised DTP for laying out adverts)	£630.00
PageMaker 4.0 Ⓜ (one of the two heavy hitters)	£495.00
Personal Press (new baby brother for PageMaker)	£180.00
Publish It Easy 2.0 Ⓜ (MacUser US best DTP winner)	£145.00
Quark Xpress 3.0 Ⓜ (the other of the two heavy hitters)	£495.00
Quark Xtra Ⓜ (goodies that add to Xpress' features)	£69.00
Ventura Publisher Ⓜ (finally migrates from DOS world)	£575.00

### DTP AIDS & FONT MANIPULATION

Mariah Ⓜ (database for your graphics, search, keywords)	£99.00
DataShaper (database publishing tool)	£225.00
LeiraStudio (powerful headline font manipulation software)	£275.00
Pre Print Ⓜ (colour separates your PageMaker output)	£365.00
SuperBlue 2 (transfer, view and paste incompatible documents)	£85.00
TypeStyler Ⓜ (manipulates PostScript fonts)	£155.00
TypeAlign Ⓜ (draw a wiggly line and type text, needs ATM)	£79.00

## FONTS

### TYPEFACES (all Ⓜ)

Adobe Fonts	call
ATM Plus Pack (Adobe versions of rest of the Laser fonts)	£110.00
Adobe Type Manager (THE essential DTP program)	£55.00
Adobe Type Sets (collections of Headline fonts)	from £79.00
Bitstream (TrueType font packs 1 and 2)	each £59.00
Fracton Fonts (a Serif and San-Serif font for any fraction)	£45.00
Fluent Fonts (collection of bit mapped fonts)	£35.00
Fluent Laser Fonts (79 excellent PS fonts)	£130.00
Monotype Fonts (much of the famous library is now on the Mac)	call
Network Font (design your own Networks with NetFonts)	£75.00
World Class Fonts (great bitmap collections)	each £49.00
<b>FONT FOUNDRIES &amp; UTILITIES</b>	
Adobe Type Reunion (if you use lots of fonts you need it)	£45.00
FontStudio (tab full featured font foundry from Letraset)	£450.00

Fontable Plus 2 (classic bit map font foundry)	£55.00
Fontographer 3 Ⓜ (most popular PostScript font creator)	£295.00
Metamorphosis Pro Ⓜ (converts TrueType 1 & 3 to TrueType)	£95.00

## CLIP ART

Publishers Resource Ⓜ (10MB set of UK origin PostScript art)	£99.00
Designers Resource Ⓜ (dozens of beautiful EPS backgrounds)	£75.00
MapArt EPSF Ⓜ (world maps in PostScript format)	£95.00
MapArt Paint Ⓜ (world maps in MacPaint format)	£45.00
PostScript Maps UK Ⓜ (countries roads towns, London postal)	£95.00
PostScript Maps Europe Ⓜ (cities rivers countries)	£95.00
Spectrum CD Rom Ⓜ (huge quantity of good images)	£199.00
WebPaint Ⓜ (best bitmap art available - 1000's of images)	each £49.00

## PC COMPATIBILITY

Access PC Ⓜ (read PC files direct from floppy)	£59.00
DOS Mounter Ⓜ (same as above)	£69.00
DDS ReadA (DA that allows Mac to read and write to PC disks)	£79.00
MacLink Plus (popular Mac/PC link with 100's translators)	£135.00
Soft PC Mac OS Ⓜ (8088 CGA emulation for big Macs)	£240.00
Soft PC 286 with EGA (add on to Soft PC above)	£120.00
Tape FlashCard (LocalTalk card for PC works with Tops DOS)	£110.00
Tops DOS 3.0 (PC version of Tops for Apple networks)	£125.00

## COMMUNICATIONS

### SOFTWARE

MicroPhone 3.0 Ⓜ (acclaimed comms pack with user icons)	£710.00
Vicom Connect (famous UK package easy to use yet powerful)	£140.00
Vicom Multiterm (a bigger brother)	£225.00
White Knight Ⓜ (very powerful, RealByte upgrade)	£99.00

### HARDWARE

TelePort Fax Modem Ⓜ (a great product at a great price)	£195.00
WS3000 Modem (old faithful 1200 BAUD modem)	£295.00
WS3000 V22 BIS (old faithful 2400 BAUD modem)	£295.00
Courier HST 9600 baud (fast modem at good price)	£395.00

## NETWORKING

### SOFTWARE

Carbon Copy Twin Pack Ⓜ (remote access and file sharing)	£220.00
DataClub (new pretender to Tops crown starts as 3 pack)	from £165.00
EtherNet (monitor Ethernet networks)	£525.00
EasyShare Ⓜ (cheap but sophisticated file sharing)	£99.00
GraceLAN 2.0 (lousy name, good network analysis)	£245.00
Liason (print router and network dial in)	£245.00
LocalPeak (monitor LocalTalk networks)	£295.00
Microsoft Mail Server Ⓜ (classic powerful E-Mail)	£185.00
Microsoft Mail 10 User Ⓜ (works with above)	£365.00
Network Font (design your own Networks with NetFonts)	£75.00
QuickMail 2.2 10 User Ⓜ (powerful flexible E-Mail)	£320.00
Timbuktu 4.0 Ⓜ (remote access software for networks)	£85.00
Timbuktu Remote Ⓜ (remote access software for modems)	£130.00
TOPS 3.0 (classic file sharing software without dedicated Mac)	£145.00

### HARDWARE

Anet (AppleTalk connector boxes)	£25.00
MacNet (PhoneNet connector boxes)	£19.00
Ethernet Boards (thick thin wire or twisted pair versions)	from £235.00
NetModem (share one modem over entire network)	from £335.00
NetSerial (share serial devices on network)	£250.00
NetBridge (bridge networks for extra speed etc)	£365.00

## HARDWARE

### INPUT DEVICES

Floppy Drive 800K (add-on external floppy)	£135.00
Floppy Drive 1.44Mb (add-on external floppy)	£235.00
Gravis MouseStick ADB (serious stick for serious gamers)	£95.00
Extended Keyboard (15 function keys, numeric pad)	£105.00
Kurta Graphics Tablet	from £295.00
Wacom Graphics Tablet (pressure sensitive)	from £550.00
MacRecorder II Ⓜ (classic cat sound digitiser with software)	£165.00
Voice Digitizer (as above without sound edit software)	£95.00
Voice Navigator II (most sophisticated voice recognition yet)	£495.00

### MAG TO TAKE AWAY

Agenda 32K (pocket size free form database)	£155.00
Outbound (turn your Plus or SE into a portable)	from £1495.00
288 MacLine (classic in its time great Mac link WP spread)	£295.00
<b>CHIPS 'n' BOARDS</b>	
SIMMs	see box
Accelerator Boards and Cache Cards	call
DoubleUp (NuBus board and compression software)	£215.00
Math Co-Processor Mac LC (speed up your LC)	£125.00
Radius Rocket (faster than an FX, 25MHz 040 accelerator)	£1995.00



## MacLine Policy

- \*Credit cards will not be charged until the order is shipped.
- \*If a partial order is despatched, the balance is posted free of additional postage charges.
- \*All goods are sent by Recorded First Class Mail or by a courier service. A signature is required on delivery.
- \*Same day motorcycle delivery in London area is available.
- \*Defective software is replaced immediately.
- \*Refunds will only be given on unopened packages that are returned within 7 days of receipt.
- \*Prices are correct at time of going to press.

ALL PRICES ARE EXCLUSIVE OF VAT & POSTAGE  
CALL FOR OUR FREE CATALOGUE



Authorised Apple Dealer

## Ordering & Payment

- \*To order call Monday - Friday, 9.00 am to 7.00 pm.
- \*DELIVERY. Add £3.00 on orders up to £150.00 in value. Add £5.00 on orders between £150.00 & £750.00 in value. Add £12.00 on orders above £750.00 in value.
- \*Add VAT to the total price, except on books.
- \*Payment is by credit card, cheque or money order.
- \*Government depts, Ed. establishments and P/c companies are welcome to purchase with an official order subject to status.
- \*International orders accepted with credit card only
- Postage added at cost.

## ACCESSORIES

Cables (those not shown below)	call
SCSI cable	£15.00
SCSI extension 1m or 2m	£24.00
SCSI to SCSI 1m or 2m	£19.00
Modem cable	£10.00
ImageWriter cable	£7.00
Diskette storage box 80	£9.00
Mouse Mat	£4.00
Anti Glare Screens (eases eyestrain)	from £35.00
Security Cable System (is your Mac vulnerable to theft?)	£35.00
Mac II Stand (vertical floor stand with long cables)	£65.00
SE/Plus/Classic Tilt & Swivel stand (a bargain)	£24.00
Mac Carry Bag (Plus, SE and Classic)	£35.00
Toolkit (necessary to open Plus, SE or Classic)	£15.00

## CONSUMABLES

80 800k Floppy Disks	£0.55
HD 1.44Mb Floppy Disks	£0.95
ImageWriter Ribbons	£3.75
Laser Labels (floppy disk or envelope)	£12.00
Paper Mono Laser 180g (very high quality)	£10.00
Paper Mono Ink Jet 90g (very high quality)	£6.00
Toner Cartridges (laser & inkjet printers)	call

## PRINTERS

Epson Serial card (for Epsons that don't have a serial port)	£25.00
LabelWriter (mini thermal printer produces sticky labels)	£195.00
LaserMax KX1000 (1000 dpi A4 mono printer)	£995.00
GCC PLP II (great laser printer at a great price)	£695.00
GCC PLP III (3 page per minute version)	£925.00
HP DeskWriter (superb inkjet, new low price/Asquith)	£995.00
HP PaintWriter (cheapest way to print in colour 150 DPI)	£850.00
LabelWriter (mini thermal printer produces sticky labels)	£195.00
QMS PS410 (PostScript laser printer at a low price)	£1695.00
<b>PRINTER SOFTWARE</b>	
Epson LQ Mac (driver and fonts for serial Epson LQ printers)	£69.00
Freedom of the Press (PS interpreter for many printers)	£30.00
Freedom of the Press LPI (mono printers version)	£95.00
TSript (software PostScript interpreter for non PS printers)	£95.00

## DATA STORAGE

20 Mb external drive (Micronet)	£175.00
42 Mb external drive (Micronet)	£325.00
100 Mb external drive (Micronet)	£425.00
210 Mb external drive (Micronet)	£695.00
400 Mb external drive (Disk)	£1195.00
600 Mb external drive (Disk)	£1695.00
1000 Mb external drive (Micronet)	£2095.00
Tape Backup 150 Mb (Disk)	£395.00
DAT Tape Backup 1.3 Gb (Micronet)	£1695.00
Optical Drive 500 Mb (Disk)	£2495.00
CD ROM Drive (Hitachi)	£395.00
45 Mb Syquest Removable Drive (Micronet)	£395.00
80 Mb Syquest Removable Drive (Micronet)	£850.00
Syquest Removable 45 Mb Cartridge	£35.00
WORM 940 Mb (Panasonic)	£2095.00

## PROGRAMMING

Plus 2.0 (full colour alternative to HyperCard also for PC)	£265.00
ProGraph (new programming tool)	£245.00
Prototyper II (creates C code for Windows Menus Dialogs)	£195.00
QuickBasic (a little BASIC nigger from Microsoft)	£55.00
SmallTalk V (best version of the definitive OOPS language)	£139.00
SuperCard (alternative to HyperCard has powerful language)	£210.00
Think C 4.0 (PageMaker was written in this)	£135.00
Think Pascal 3.0 (it probably could be rewritten in this)	£135.00
TMON (debugger catches your Mac when your app crashes)	£98.00
ZBasic 5 (heavyweight BASIC with good toolbox access)	£125.00

## EDUCATION

### UP TO 12 YEARS

Cosmic Game (magical interactive audiovisual adventure)	£47.00
Cosmic Game CD (as above only bigger on the CD)	£50.00
KidTime 2 (5 classic learning programs for the 3 to 7 year old)	£35.00
KidMath 2 (takes kids from counting to applied arithmetic)	£35.00
KidPix 2 (wonderful paint prog with sounds)	£32.00
The Monhole (like Cosmic Game only different)	£35.00
The Monhole CD (as above only more of)	£59.00

Math Rabbit (teaches counting and arithmetic to young ones)	£39.00
NumberMaze 2 (award winning arithmetic tutor)	£39.00
ReadingMaze 2 (essential reading skills)	£39.00
Reader Rabbit (award winning program for teaching reading)	£39.00
Talking Tiles (animated face mouths letters and vowels)	£35.00
<b>FROM 10 YEARS UP</b>	
Astrix (detailed astrological horoscopes and charts)	£39.00
EarthQuest (teaches a new type of multi-curricular learning)	£55.00
NumberMaze Decimals & Fractions 2 (helps older kids)	£39.00
EuroStack 2.0 (all embracing Euro sheet conforms to N Curriculum)	£55.00
EuroGuide UK (maps demography/scans you add to shelf)	£55.00
Calculus	£59.00
Physics	£59.00
Voyager Astronomy	£55.00
Where In World is Carmen San Diego? (geography based)	£31.00
Where in Europe is Carmen San Diego? (geography based)	£31.00
Where In Time is Carmen San Diego? (history based)	£31.00
Word Torture Language tutor:	
French, Spanish, German, Russian	each £35.00

Special low Education prices are available on some products, including Microsoft, Claris, Symantec and others to authorized educational establishments with Educational Purchase Orders.

## CD ROM

Hitachi CD ROM Drive (quality drive)	£395.00
Amanda Stories (stories for young kids)	£75.00
Back Brandenburg (the concertos and all about them)	£75.00
Beethoven's Gin (the symphony and all about it)	£75.00
Beethoven String Quartet 14 (the quartet and all about it)	£49.00
Mozart Magic Flute (the opera and all about it)	£49.00
BMUG (huge collection of public domain and shareware)	£50.00
Clon Mac (400 mb of public domain and shareware software)	£195.00
CD Fun House (50 mb of games)	£55.00
Countries of the World (600 mb of compressed software)	£295.00
Diesel Storm (the Gulf war history)	£35.00
Discs Kids Stories (well known childrens books)	each £75.00
Groliers Encyclopedia (21 volumes, 9 million words)	£235.00
Learn to Speak French (ah... learn to speak French)	£235.00
Merriam Webster Dictionary (the Oxford not on Mac CD yet)	£175.00
Shakespeare Complete Works (at your fingertips)	£79.00
The Manhole (fabulous graphic adventure for kids)	£59.00
Time Table of History (the history of history)	£110.00
Time Table of Science (the history of science)	£110.00
Sherlock Holmes Complete Works (put your feet up)	£95.00
Virtual Valerie (ever so slightly naughty graphic story)	£60.00
World Fact Book (248 comprehensive country profiles)	£60.00

## UTILITIES & DA's

<b>FILE &amp; DISK MANAGEMENT</b>	
911 Utilities 2 (the pro's file & disk recovery)	£99.00
Complete UnDELETE 2 (recover trashed documents)	£99.00
Can Opener 2 (view data files without parent application)	£75.00
ClickChange (interface customisation)	£49.00
Disk Express II 7 (speed up, unfragment hard drives)	£55.00
DiskDoubler 2 (file compaction to save space)	£45.00
Disk Top 4 2 (powerful DA/index)	£60.00
File Director (9 essential DA's and Finder enhancement)	£75.00
Gaffer (search key words in multiple text files)	£54.00
HandOff II (no more "application is busy or missing")	£59.00
Impress! (software only compression from Radius)	£125.00
InitPicker 2.0 2 (choose startup items)	£35.00
MasterFinder 2 (only system 7.0 utility worth having)	£55.00
MultiDisk 2 (best hard disk partitioner)	£59.00
Norton Utilities (hard disk utils from the PC)	£65.00
Now Utilities (12 wonderful Init's & DA's)	£69.00
On Cue (launch applications and documents from menu bar)	£39.00
On Location (highlighting the location)	£89.00
Personality (allows customisation of the Mac interface)	£55.00
Shortcut 2 (extra commands in open dialog box)	£49.00
SuperDisk 2 (file compression)	£59.00
SUM II (essential utilities plus guard against crashes)	£89.00
<b>SECURITY</b>	
After Dark 2.0 2 (screen saver with many options)	£24.00
A.M.E. (very sophisticated data security)	£195.00
DiskLock 2 (reasonably priced data file security)	£125.00
Empower I (file & data security)	£120.00
Empower II (sophisticated file & data security)	£225.00
MacSafe II (file security)	£95.00
FileGuard (data encryption)	£145.00
Nightwatch (hard disk security)	£75.00
QuickLock (lock out prying eyes from your data)	£32.00
<b>BACKUP &amp; VIRUS PROTECTION</b>	
AutoSave 2 (saves your work at user determined intervals)	£29.00

Backmatic 2 (for those who hate backing up)	£50.00
DiskTwin (constant HD duplication security)	£95.00
FastBack 2 (very fast and compact)	£105.00
HighShift (sophisticated network backup)	£325.00
Redux 2 (best value backup program on the market)	£59.00
Retrospect 2 (most sophisticated archival backup)	£130.00
Retrospect Remote 2 (THE solution for network backup)	£225.00
SAM 3.0 2 (Symantec's anti virus utility)	£79.00
Virus 3.1 2 (best virus tracer & eradicator of all)	£59.00

<b>PRODUCTIVITY ENHANCERS</b>	
Calculator Constructor 2 (create DA calculators)	£54.00
Calendar Maker 2 (customise calendars)	£39.00
CalenDAr 2 (brilliant alarm, reminder and diary system)	£32.00
DiskPager (grind to disk from any application)	£95.00
Dynodex 2.0 2 (phone/address database with Outlook printout)	£99.00
Exposure Pro 2 (screen dump utility with paint tools)	£82.00
Hyper DA II 2 (read HyperCard files from a DA)	£49.00
MacList 2 (simple DA list manager)	£45.00
Master Juggler (100's DA's & fonts bypassing FDISK Mover)	£59.00
Meeting Maker 5 user 2 (sophisticated network diary)	£245.00
MultiClip 2.0 (multiple copies & pastes)	£65.00
QuickKeys 2.0 2 (macro maker, line saver utility)	£99.00
QuickDex (lightning fast DA database, essential)	£35.00
Screenshot (low cost full featured screen dump utility)	£25.00
Stepping Out 2 (software big screen extender)	£59.00
Smart Alarms 2 (DA reminders/diary system)	£65.00
Smart Alarms multi user 2 (network diary version)	from £125.00
SmartScrap & Clipper (enhanced scrapbook)	£65.00
StopWatch 3.0 2 (client & project time/activity monitoring)	£85.00
StuffIt DeLuxe 2 (powerful file compression program available)	£85.00
Suitecase 2 2 (manages 100's DA's & fonts)	£49.00
SuperGlue II (print images to disk)	£99.00
SuperSpool (best ImageWriter spooler)	£59.00
SuperSpool (Laser & ImageWriter spooler)	£95.00
Talking Mouse (not a productivity enhancer)	£23.00
Tempo II (the most powerful macro maker)	£99.00
TouchBase (networkable contact database)	£95.00
WindowWatch 2 (log on time usage of windows)	£75.00

## ENTERTAINMENT

<b>ARCADE</b>	
→ Beyond Bad Castle (more of the classic game)	£31.00
✓Crystal Quest 2 (Britain's favourite game)	£29.00
✓Crystal Quest with Critter Editor (edit game to your taste)	£49.00
✓Colony (loosely based on the movie "Aliens")	£24.00
✓Dark Castle (the classic Mac game still going strong)	£31.00
✓Dragons Lair (graphic knights versus dragons)	£35.00
✓Faces (from the Tetris people)	£24.00
✓Hortage (anti terrorist rescue mission)	£29.00
✓Mission Starlight (addictive space shoot 'em up)	£29.00
✓OIDS (addictive space shoot 'em up)	£25.00
✓PipeMania (arcade game from Lucas Films)	£24.00
✓Smittiepuke (air table ice hockey)	£76.00
✓Sky Shadow (shoot 'em up from the Crystal Quest author)	£29.00
✓Tetris (award winning colour Soviet game)	£24.00
✓Welltris (3 Dimensional Tetris, could drive you insane)	£24.00
<b>SIMULATIONS</b>	
✓4th and Inches (manage an American Football team)	£19.00
✓Chuck Yeager Flight Trainer (colour & different aircraft)	£25.00
✓Crazy Cars (exciting driving simulation)	£24.00
✓The Cycles (excellent motorcycle racing sim)	£27.00
✓Flight Simulator (the famous Microsoft one)	£39.00
✓Falcon 2 (exciting & networkable flight simulator)	£34.00
✓Ferrari Grand Prix (the best formula one simulation)	£36.00
✓Fokker Triplane (World War One flight simulator)	£29.00
✓Hunt For Red October (mean the hawk, see the film)	£21.00
✓Jack Nicklaus Golf (highly realistic simulation)	£32.00
✓Life and Death (be a doctor, perform actual operations)	£24.00
✓MacGolf (superb graphics (Plus & 1Mb SE only))	£35.00
✓MacGolf Colour (highly addictive (all other Macs))	£56.00
✓MacSki (get in shape for the slopes)	£42.00
✓Mean 18 (alternative colour Golf simulation)	£27.00
✓Musling P51 (lighter plane simulation)	£39.00
✓Net Trek (multi player network space game)	£39.00
✓PT 100 (graphic patrol boat simulation)	£29.00
✓Sim City (design and run your own city)	£32.00
✓Sim City Colour (design and run a colour city)	£52.00
✓Sim Earths (design and run your own planet)	£49.00
✓Space Rogue (equivalent of Elite only better)	£27.00
✓Strategic Conquest (top war simulation)	£39.00
✓The Duel:Test Drive (race your Porchs round California)	£32.00
✓Vette (race a Corvette through San Francisco)	£34.00
✓Ancient Art of War (Sun Tzu's high quality war simulation)	£26.00
✓Ancient Art of War at Sea (sea-faring version of above)	£26.00

MacLine Britain's first Macintosh mail order company

# MacChat

## Norah Arnold looks at the latest Apple press releases and product news.

### Apple and IBM Outline Technology Initiatives for the 1990s

Apple Computer, Inc. and IBM will work to create powerful new open system software platforms for the 1990s, according to a letter of intent signed today by both companies. The companies will develop and market new technologies which both Apple and IBM will integrate into existing and future products, as well as offer for use on other vendors' computers. The letter of intent covers four areas of general understanding:

1.) Joint venture for object-oriented software. Apple and IBM intend to create a new open system software platform that will be based on object-oriented technology. The new platform will offer major new user and system functionality, while greatly simplifying the process of application programming.

It will span a wide range of computing platforms--from laptop computers to large servers--and is expected to run on major industry hardware platforms, including Intel's x86, Motorola's 680X0, and IBM's RISC System/6000 POWER architecture. Apple and IBM intend to use object-oriented technology in future product offerings, as well as in current operating systems, assuring that applications written for current operating systems, including AIX, OS/2 and Macintosh, will run in these new environments.

In order to implement this plan, Apple and IBM will form a new system software company to be jointly owned and independently managed. The software will be offered for sale for both IBM and Apple computers. Additionally, it

will be marketed widely by the new company for use on other vendors' systems.

2.) Apple Macintosh computer integration into IBM's enterprise systems. IBM and Apple plan to work together to further integrate Macintosh into the client/server enterprise environment in two ways.

First, Apple and IBM will develop, market, and support networking and communications products that will further extend the ability of the Apple Macintosh computer to operate in the IBM enterprise environment.

Second, IBM and Apple will develop and market an enhanced AIX (IBM's industry-standard UNIX operating system) that combines the best of IBM's open systems with Macintosh and its thousands of user-oriented productivity applications.

The enhanced AIX will span the range from desktop workstations to servers, and will offer Macintosh and OSF/Motif user interfaces.

3.) Significant new markets for the IBM POWER RISC architecture. Apple intends to adopt future single-chip implementations of IBM's RS/6000 POWER architecture--called POWER PC--in future Apple Macintosh personal computers. Both companies will use POWER PC microprocessors in workstations and file servers. Motorola, Inc. and IBM will use their expertise to design and manufacture a new family of world-class POWER PC chips. Motorola will serve as a source to IBM, Apple and other open systems vendors.

Motorola intends to market the POWER PC microprocessors in configurations that will target a broad spectrum of systems.

4.) Common multimedia platforms for the industry. IBM and Apple plan to work together to create and license platform-independent software environments that will stimulate widespread industry development of this new technology.

New multimedia technology resulting from this effort also will be made available for use on other vendors' products.

Implementation of the letter of intent is contingent on the execution of definitive contracts. The companies intend to complete the contracts later this year and will release further details only at that time. Products resulting from these agreements are expected to reach the marketplace over the next two to three years.

Apple Press Releases PR Express July 1991

### Apple Reduces Price on CD-ROM Drive and Improves Performance

Apple Computer, Inc. have announced the AppleCD SC Plus Drive, offering Macintosh and Apple II users a fast and cost-effective way to access and explore tremendous amounts of information. The AppleCD SC Plus has a U.S. manufacturer's suggested retail price of \$799, a 10 percent price decrease from the current AppleCD SC drive. The AppleCD SC Plus also offers users an access time that is about 25 percent faster than the current drive. In addition, the new drive offers improved reliability. The AppleCD SC Plus incorporates a built-in door for front loading of CDs and an automatic lens cleaning mechanism for better protection from dust.

In addition, version 3.2 of the AppleCD SC software now offers an additional audio volume control driver. This new driver offers users the flexibility of controlling volume directly from their CD-ROM drive or from the software-based CD Remote desk accessory.

#### Product Description

The AppleCD SC Plus is a compact disc, read-only memory drive that can be used with both Macintosh and Apple II computers. It can store more than 650MB of information (the equivalent of 700 Macintosh floppy disks or more than 270,000 typewritten pages)

on a single CD-ROM disc.

The AppleCD SC Plus drive provides access to thousands of discs, which store any combination of text, graphics, and sound in digital format. The drive also supports both the ISO and the High Sierra industry standard file formats. The AppleCD SC Plus also features audio capabilities.

Using the drive's headphone or RCA jack, users can listen to an audio CD when they are not working with a CD-ROM disc.

The AppleCD SC drive can be attached to an AppleShare file server, allowing multiple users to access information from a single disc. System 7 Compatibility: Version 3.1 (which supports the original AppleCD SC) and Version 3.2 (which supports the new AppleCD SC Plus) are compatible with System 7. U.S.

#### Pricing/Availability

The new AppleCD SC Plus and software are available immediately in the US at the manufacturer's suggested retail price of \$799 through authorized Apple resellers in the United States. In addition, version 3.2 of the software is available through user groups and major computer bulletin board services.

### Apple Ships Integrated Macintosh Communications Products for IBM Computer Networks

Apple Computer, Inc. have announced immediate availability of its new SNA.ps family of products that extend the ability of Macintosh personal computers to communicate with IBM systems in large computer networks.

The SNA.ps family delivers a comprehensive, integrated set of protocols and services for Macintosh users who want to communicate in an IBM Systems Network Architecture (SNA) environment. Systems Network Architecture is IBM's framework for transferring data among IBM and other computers in an enterprise system. Apple's SNA.ps products offer concurrent support for terminal emulation and peer-to-peer communication in an IBM SNA environment. SNA.ps provides high performance and flexible access to SNA networks from a

single Macintosh or an AppleTalk network.

"The new SNA.ps products make the Macintosh the best PC for connectivity into IBM host environments," said Jim Groff, director of product marketing for Apple Computer's Enterprise Systems Division. "SNA.ps supports a complete set of network services over a wide range of media, providing the most flexible and transparent access to IBM host computers in the industry."

The new SNA services for the Macintosh feature IBM 3270 terminal emulation and concurrent peer-to-peer access using IBM's Advanced Program-to-Program Communication (APPC) protocols. The SNA.ps Gateway also incorporates the first level of support for IBM's Advanced Peer-to-Peer Networking (APPN) protocols - NT2.1 Low Entry Networking (LEN).

APPN is IBM's extension to SNA networks that provides the means for mainframe, departmental and workstation systems to communicate as peers through standardized connectivity and directory services. Concurrent with IBM's March 1991 APPN announcement, Apple said it would support APPN in two phases: first, the LEN support which is included in today's SNA.ps Gateway release and second, full APPN end node support in a future SNA.ps Gateway release. SNA.ps' support of APPN enables a new generation of Macintosh applications that provide truly transparent access to IBM host data and services and integration of AppleTalk.

Apple's network protocols, into enterprise-wide SNA networks.

#### The SNA.ps Family

Apple's SNA.ps family consists of the SNA.ps Gateway, SNA.ps 3270 and two Developers' Toolkits, giving Macintosh users access to data, applications and services on IBM host systems. SNA.ps replaces Apple's existing services for IBM SNA networks: MacDFT (Distributed Function Terminal), which provides 3270 terminal emulation and MacAPPC, which enables third-party developers to build Advanced Program-to-Program Communication (APPC) products for Macintosh personal computers.

#### The SNA.ps Gateway

The SNA.ps Gateway offers support for multiple interface cards, adjustable performance parameters and combines 3270 terminal emulation with APPC (the same as IBM's Logical Unit 6.2). The product can be configured as a personal gateway for direct Macintosh-to-SNA connectivity or as an AppleTalk network gateway, enabling any Apple Macintosh to communicate with IBM systems running the VM, MVS, OS/400 or OS/2 operating systems.

The SNA.ps Gateway, implemented on Apple's family of intelligent NuBus busmaster network interface cards, offers high performance through parallel sessions and independent Logical Unit (LU) support. This design gives users multiple gateways in a single machine and frees the main Macintosh processor to run applications without affecting the Macintosh's performance. The software supports the Apple TokenTalk NB Card for industry standard Token-Ring networks, the Apple Serial NB Card for SNA/SDLC connections, and the Apple Coax/Twinax Card for cluster controller/DFT connectivity. The SNA.ps 3270

Apple's SNA.ps 3270 software application provides Macintosh users with standard IBM 3270 terminal emulation. With SNA.ps 3270, any Macintosh personal computer (Macintosh Plus, SE, SE/30, Classic, LC, Portable and the entire Macintosh II line) has standalone or network access—in conjunction with an SNA.ps Gateway—to the IBM host.

In addition to support for AppleTalk gateways, the SNA.ps 3270 product includes Control Unit Terminal (CUT) and DFT capabilities for direct coaxial SNA connections. It supports all IBM screen display formats and attributes, uses the IBM standard protocol for file transfers and integrates mainframe data into Macintosh applications using standard Macintosh copy-and-paste techniques. SNA.ps 3287—which will enable LaserWriters to emulate IBM's 3287 class of printers for printing host application documents—will be available in early 1992 as a free upgrade to SNA.ps 3270 and SNA.ps Gateway.



### Third-Party Toolkits

Third-party developers can build on the flexibility of both SNA.ps products. The SNA.ps APPC Developers Kit offers tools for creating LU 6.2 applications, including communication with IBM's OfficeVision, host-resident databases and emerging distributed applications.

The SNA.ps 3270 Developers Kit enables third-parties to build LU 2 applications, including alternative 3270 terminal emulators, graphical front ends to 3270-based applications and host interface development tools.

#### Price and Availability

The SNA.ps Gateway and 3270 application are available from authorized Apple resellers in the United States. The SNA.ps Gateway is available in three versions, for eight, 32 and 64 sessions. In the U.S., these versions are available immediately at manufacturer's suggested retail price (MSRP) of \$1495, \$2995 and \$4495, respectively. The accompanying SNA.ps 3270 GC (Gateway Client) terminal emulation software for the SNA.ps Gateway is available in the U.S. at \$125 MSRP per copy. The full-function SNA.ps 3270 application—with client support for the SNA.ps Gateway, plus DFT and CUT support—sells for \$345 MSRP in the U.S. Customers of Apple's MacDFT may upgrade to SNA.ps 3270 free of charge. Price and availability outside the United States will vary by country.

### Product Update MacX 1.1.7

MacX 1.1.7 is the latest version of Apple's X Window System display server for the Macintosh operating system. It provides X Window System access and functionality for customers using Apple Macintosh computers in multivendor environments. MacX 1.1.7 provides customers an integrated computing environment with simultaneous access to Macintosh and X applications, as well as the ability to cut and paste color graphics and text between them.

#### Significance

MacX 1.1.7 provides support for System 7, Apple's latest version of the Macintosh operating system.

MacX customers can now take advantage of System 7 functionality, such as Virtual Memory. This new capability expands the Macintosh computer's memory through software so that Macintosh customers can run more and larger applications. In addition, new MacX 1.1.7 customers will receive 30 days Technical Answerline support from Apple. MacX 1.1.7 is required for running MacX with System 7.

#### Availability/Distribution

MacX 1.1.7 will be available through authorized Apple resellers in August, 1991. Pricing/Upgrades: MacX 1.1.7 is \$295. Upgrades are available for current MacX 1.0 and 1.1 customers for \$95, a 34 percent price decrease from the previous upgrade.

#### For A/UX Customers

Customers using MacX with A/UX, Apple's version of the UNIX operating system, do not need to upgrade to MacX 1.1.7. MacX has been included in A/UX since version 2.0.1 (March 1991). The next version of A/UX, which will include support for System 7, will incorporate MacX 1.1.7. In addition, X11 for A/UX, Apple's complete X development environment, now replaces X Window System for A/UX, which used to incorporate MacX. Customers can use this product, which includes client applications, libraries and tools, for X Window System development. X11 for A/UX includes the software on both floppy disks and CD-ROM discs, for \$195. Additional manuals are \$95. X11 for A/UX will also be available through authorized Apple resellers in August, 1991. Contact: Jackie Promes Apple Computer, Inc. (408) 974-3609

### Technology's Impact on Learning and Teaching

Students and teachers from four states—all participants of the Apple Classrooms of Tomorrow (ACOT)(sm) education research project—will demonstrate new ways to learn and teach using computer technologies at the 26th annual Education Commission of the States Conference in Denver, Colorado.

Students, ranging from second graders to high school seniors, will


demonstrate classroom work such as writing using interactive multimedia software, scientific inquiry using digital image processing, and foreign language learning that incorporates full-color animation and HyperCard.

"Technology is pervasive in society today. Kids who don't learn to think and work with technology will be disadvantaged compared to kids who do," said David C. Dwyer, PhD., project manager and principal scientist of Apple Classrooms of Tomorrow.

"A recent headline declaring that the 'technology revolution has fizzled' wasn't far off," he said. "Educators and the computer industry years ago made a serious mistake expecting technology to cure all that ails our education system. We taught kids about technology when we really should have been teaching them how to think with technology."

During the ACOT presentation, Dr. Dwyer will be joined by students and teachers from Ohio, Arizona, Tennessee and California who participate in ACOT research. ACOT is a six-year-old research and development partnership with public schools and major universities that studies how learning and teaching change when students and teachers have high access to technology. ACOT is funded by Apple Computer, Inc.

According to a recent Ohio State University study of ACOT students, they exhibit characteristics quite different from their non-ACOT peers. Among other things, ACOT students are better at problem solving, experimentation, collaboration and communications. They have a strong self image and a positive orientation to the future.

ACOT's approach is to integrate instruction, technology and assessment. At the ECS conference, Keith Yocam, ACOT senior scientist, and Faye Wilmore, a Nashville teacher who conducts ACOT's teacher training, will discuss how school districts and businesses can create more responsive teacher development programs. 



# The MacRam Portable

A review by Mike Dawson.

## Introduction

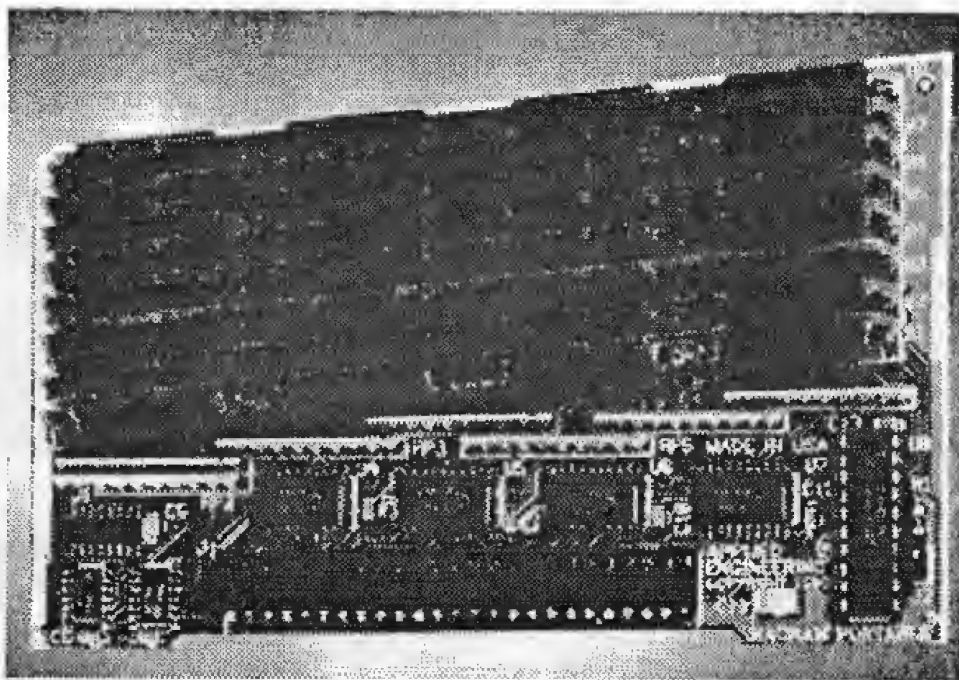
After acquiring a second-hand Mac Portable with only one megabyte of memory I was faced with an object lesson in frugal memory management. I had up until then been very spoilt with a five megabyte Mac II. No longer did my Mac say "I don't think you wanted to do that!" when I emptied the waste bin. Boomerang was sadly missed and I couldn't have DiskExpress running all the time. All minor irritations to a fun loving Mac user so I was forced to look at memory expansion. This was given extra impetus as Apple looked like getting really serious about letting loose System 7 onto an unsuspecting public. (No one suspected that Apple would ever release it)

So I started telephoning around the various dealers getting quotes for the differing levels of capacity of memory card available. It was at this point I started to get irregular heart beats as I was given the prices, it was quite a shock. The going rate seemed to be £200 (+VAT) for a one megabyte board expansion. The memory size grew with an inverse relationship to my bank balance. I started out with an idea of buying 3 megabytes to bring me up to a total of 4 megabytes so I could use my Typist hand scanner. I gulped with amazement as one dealer quoted £600 (yes six hundred pounds) for just three megabytes. I hurriedly declined and went away to compose my nerves.

It seemed to me that these memory boards on offer were not expandable and that the purchaser had to live with the amount bought or replace the whole board. This was of course expensive as how can any of us predict the future when

memory requirements seem to spiral ever upwards?

I reached for a stiff Scotch to calm my nerves and I opened a copy of our illustrious magazine. My eyes fell upon an advertisement from Clocktower which simply stated "MacRam Portable 1-8 Meg". Mmmmmmm I thought, perhaps this is some sort of expandable



board so I picked up the telephone. Alan Finn, the proprietor, did not sound too encouraging when he said that he did not know much about it as he had never sold one of these new RAM cards. However he said that he would FAX some details to my office. Three hours later a specification sheet dropped upon my desk which revealed all about this new RAM card for the portable. It looked good in that the expansion was possible in one megabyte steps even though the prices were higher

than the normal one megabyte board. Coming as it was from an established and respected manufacturer like Applied Engineering of Texas, USA and with such a good specification I ordered one. For those people who don't read the front section of this magazine (shame on you) Applied Engineering is a long established peripheral card supplier for the Apple II and IIGS. Their products are a bit more expensive but they have high specifications and are well made with good backup including a full five year warrantee.

## Specification

The MacRam Portable has a claimed power consumption of 3 to 4 milliamps in sleep mode and 60 milliamps in normal use with the board fully populated with eight Megabytes.

## Description

The board is sized to take up the small space allowed inside the portables' case. It is constructed from surface mounted components which reduces the size to a minimum. The plug in board is only a carrier and contains the memory management side of things. The actual memory is added by the use of one megabyte SIMMS. The SIMMS are also made with surface mounted components with memory chips on both side of the

card. The SIMM plugs in to the mother board at right angles to the mother board. It is possible to add up to eight of these SIMMS to bring the portables memory up to 9 megabytes including the original on board one megabyte. This should be enough for System 8. It is important to note here that these SIMMS are not of the usual design being inserted via pins onto the motherboard and not by a printed circuit card as in the normal Macs.

The publicity and the back of packing box details claim that the board does not obstruct the adjacent slots. A quick review of the card position after installation showed this is patently untrue. It completely obscures the processor direct slot which is to the right of the RAM slot. It does however keep clear of the ROM and Modem slots. I was not too bothered by this as I don't know of any card for the processor direct slot and the ROM/Modem slots are more likely to be used in the future.

The board is supplied in a static protective plastic bag inside a large cardboard box. Also included in the box is a disposable anti-static earthing strap, a warning leaflet and an instruction manual.

The warning leaflet is a small information note about the anti-static strap. This is an addition as it is not mentioned in the manual at all. There must have been some problems from static electricity discharges damaging the card or even more expensively, the portable itself.

A short technical note would not go amiss here for the interested. Those who have an aversion with the "Techie" bits may skip to the next paragraph without missing anything too important. Now for the "Techies" amongst us the reason that static electricity is so dangerous lies in the silicon chips used in the construction of the MacRam Card and the portable itself. The type of chips used are called CMOS which is an acronym for Complimentary Metal Oxide Semiconductor. The characteristics of CMOS chips are very low power consumption, high transistor gate input impedance and very susceptible to static electricity discharges when they are unpowered. A static electricity discharge will literally punch a hole through the input transistor gates of the chip. This of course spells

death to all who fall in the path of the static discharge path. Chips curl their pins up and go to that big printed circuit board in the sky. It's then off to the bank manager with a tale of woe hoping for a sympathetic response.

### The Installation Manual

The installation manual is short but very well written with simple steps. It is concise and illustrated with photographs where appropriate. Explanations are given as to why certain things are done and dire warnings are issued about the consequences of ignoring some of the steps. I was left with no unanswered questions whilst I went through the installation procedure except for two points. One was should I shutdown the portable or would leaving it in sleep mode be acceptable. The second was should the mains adaptor be disconnected. After reading the manual a second time I came to the conclusion that it was not really important as the battery is removed during the installation procedure. The portable is powered by the battery only, the mains adaptor charges the battery and not the Mac directly. So removing the battery would effectively shutdown the Mac and isolate the mains adaptor. Before commencing the installation I shutdown the Mac and removed the mains adaptor just to make sure. Shutting down the Mac rather leaving it in sleep mode is advisable as then all files are properly closed. Additionally any open applications with work in them will be properly saved to hard disk. Also don't forget to copy the contents of the RamDisk as this will be completely lost during installation of the ram card.

The registration card in the centre of the installation manual also invites the user to comment on the product and the contents of the manual. This is a refreshing change and gives the strong impression of listening to the customer.

### Installation

Now on to the procedure itself which is straight forward. First the disposable earthing strap is unwrapped and one end wrapped around your wrist. The other end is self adhesive and is attached to a good earthing point. A good earthing point would be a water pipe (not a plastic one !) and I chose the

incoming water main in my kitchen as I knew it to be the house electrical earth as well. This was the best earth point of all. For most people the central heating pipe will suffice as long as it is not painted. Having earthed yourself the next step is to earth the portable by touching the speaker jack socket. There is no danger to the individual, it's purpose is to equalise any differences in static electricity potential between the Mac and the rest of the universe. Having done this and then making sure the mains adaptor is disconnected the rear cover is removed to reveal the battery and the peripheral slot area. The battery is removed and then the battery cover replaced. Great emphasis is placed on this in the manual as the memory board will be short circuited otherwise. There is no requirement to remove the 9 volt dry battery for the PRAM (Parameter Memory). The MacRam board is then removed from it's static protective bag. Then ensuring that the correct slot is selected the board is aligned to the slot guides and then pushed firmly into it's socket. The correct slot is difficult to miss as it is labelled on the portable motherboard as well as pointed out via a diagram in the manual. All that is left is to replace the battery and restart the Mac.

Further expansion of the card with SIMMS will entail repeating the above. This is because the board will have to be withdrawn from the portable to be able to insert the SIMMS. To this end although the earthing strap is meant to be disposable I have carefully repacked it with an eye to the future.

### Use

There is no special procedure to use the memory as the Mac will automatically recognise it on start-up. I have used it for a couple of weeks without a single problem. Now for that next expansion SIMM.....

### Conclusion

On paper this RAM card is a bit pricey but it does offer a very good specification and the important ability of progressive expansion. This is in itself of value. The whole package is complete with everything you need and need to know. In the final analysis it works, but then that's not too difficult. Only the



individual can decide if this is the option for them in relation to the price but this high specification and well made card deserves serious consideration.

Finally, yes the Portable is a bit large and yes, it is a bit heavy to carry but I call it a labour of love. It's all Mac and I love it. A portable gives me the ability to do things the easy way at the office as well as when I'm away on business. (and it plays Strategic Simulation and Chuck Yeager's flight simulator!).

A footnote here might interest some people as to how this article was written. I purchased the MacRam Portable just before I departed to Nigeria on a business trip. I did not take my portable or for that matter my Cambridge Computer Z88 with me because I was warned of possible Nigerian Customs problems. No matter as a colleague who works in Lagos and is a fellow Apple2000 member has his Z88 with him. He kindly lent it to me to do some work on and I took the opportunity to write this article as well. So the astute amongst you





will be asking, yes but how did you get the article back to Britain. Help was at hand from an unlikely source. The Z88 was equipped with an interface programme to a, dare I say it, IBM model PS something or other (so what do you expect in an Apple magazine?). So I sacrificed my principles and copied the file across to a floppy disc. This was an exercise in self torture due to the MS DOS operating system. Fortunately I have used CP/M on the Apple II+ so I was not completely mystified. I took the floppy disk back to Britain, ported the file over to the Mac using the Apple File Exchange Programme. Then all that was required was to scan the diagram, enter the specs and send the whole article to Norah on the bulletin board. So there is a use for the IBM's, as a slave for the Z88 I. For those inhabitants of 'the global village' we did not have a modem and the telephone lines are not very good anyway so direct loading up of the article to TABBS was off. So a mention of thanks to Leo Bailey for loaning me his Z88 and so enabling this article to come to print so

quickly.

Available from :-  
Clocktower, 84a Weston Park,  
Crouch End, London  
(see advertisement in this magazine)  
Tel. 081-341-9023  
Price £255 + Vat but check for  
pricing as it will vary due to the  
dollar/pound exchange rate.

info

Product: MacRam Portable  
Publisher: Applied Engineering  
Available from:  
Clocktower  
84a Weston Park  
Crouch End, London

Price: £ 276 + VAT  
Value:   
Ease of Use:   
Functionality:   
Overall: 

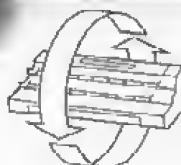
## Be Part of the Solution, Not Part of the Problem.

Every time you toss an empty toner cartridge from your laser printer or PC copier into the bin, you are contributing to the monumental problem of plastic waste. How much plastic waste? 30 million toner cartridges were sold last year alone . . . creating enough plastic waste to stretch halfway around the world.

There is a solution. We're Laser Recharge, and we specialise in a process that re-uses toner cartridges — we call it "recharging". Empty toner cartridges are totally disassembled, cleaned and refilled with our quality toner. Our high-tech process is so good that in every category: print quality, blacker solids and print consistency, Laser Recharge's cartridges outperform original cartridges.

Recharged toner cartridges are kind to the environment . . . and your pocket, generally costing 50% less than original cartridges. Improved quality, environmentally sound, and economical, recharging is just good business sense.

You have a choice. Be part of the solution. Call (0379) 650687 today for further information and for the dealer nearest you.



### LASER RECHARGE LIMITED

Units 11/14, Diss Business Centre  
Diss, Norfolk IP21 4EY  
Tel: (0379) 650687 Fax: (0379) 650688

# System 7 Discussion

## A discussion of various aspects of System 7, downloaded from AppleLink.

### What To Do With an Alias

Here's what I do with aliases:

1) My AA has my expense reports in a SmartForms document on her hard disk. She shared her folder with me using File Sharing. I made an alias to it and put it on my desktop. Now, when she arranges travel for me, she makes a new form and types in the TA number and destination; when I come back from the trip, I double-click the alias, type my password, and I get the prepared form—from her machine! I enter my expenses and save them. That way she keeps the records in her files, but I have instant access to them.

2) Our Apple Technical Coordinator has a big hard disk on an AppleShare file server called the Vault that's backed up every week. Everybody has their own private folders on it, but nobody uses it because everybody hates the Chooser. I've made an alias to my private folder on that server, and that alias is on my desktop. When I need to back up files, I just drag them and drop them on the alias—it mounts the file server, asks me for my password, and copies the files in the background (I can click on another application and resume my work while backing up!).

3) Sometimes I have to switch back and forth multiple times between two folders while using an application. For example, I have to open a document in one folder, edit it, save it into another folder, then go back to the first to get the next document. I don't want to get the files mixed up, but it's a pain to use the Open... and Save As... dialog boxes to navigate halfway 'cross my hard disk. So I put an alias to each folder in the other. Say I choose Save As and store a file in

the destination folder. When I choose Open..., the window shows that folder again; I just find the alias to the source folder, double-click it, and I'm there! When I'm ready to Save again, and the default is the source, I find the alias to the destination, double-click it, and I'm where I want to be.

What are your uses for aliases?

Author: ESPINOSA1

I put an alias of the Trash on my second monitor. That decreases the distance I have to drag when I delete items. I've also archived a number of rarely-used folders onto an AppleShare server. But I keep aliases to those folders on my hard disk in the same places those folders used to be, so it appears that nothing has changed other than several meg of disk being freed up.

—Jens Peter Allke

Author: JENS

Everytime I mount a server that I'm likely to need again, I create an alias for it, and drag it to a folder called "Servers," located in my "Apple Menu Items" folder. From then on, I can select "Servers" from the apple menu (which opens the Servers folder), option-double-click the desired server alias (which mounts the server \*and\* closes the Servers folder), and away I go!

Dave

Author: LAND.D

Things to do with aliases

1. To put items in the start up folder

2. To put all kinds of goodies in the apple menu.

Author: LAW.MANSHEL

Aliases work in the Open dialog! The great thing about David's suggestion is that it works from the

Open... dialog as well. If you're already in Excel, say, and you want to get a spreadsheet off of a server, just choose Open..., navigate over to your Servers folder, find the alias, double-click it (still in the Open dialog!), type your password, and the top level of the server is now in your Open dialog. Continue navigating down till you get your file. So even if you haven't had the prescience to mount the server before launching Excel, you still don't need to switch back to the Finder to mount the server and open your file.

Chris

Author: ESPINOSA1

I learned a great trick from John DeTroye at the Dallas Apple Office. Many times when working with co-workers throughout our office I always want something from my machine whether it be a report or an application. Using an alias, I can carry the contents of my 80 mb hard disk on a floppy disk. I do this by creating a new user using my name "Trip" and creating a password. Then I share my entire hard drive and set myself as the only person with access.

Go to another Macintosh on the network and use the chooser to log onto to your own hard drive using the password that you had assigned yourself. Once your hard drive is mounted, make an alias of it and copy the alias to a floppy disk.

Now you have a floppy disk with an alias to access your hard drive anywhere you go on your network. You will never have to walk all the way back to your office to get something off your Mac. Just insert the floppy disk in any machine on the network and double-click on the your hard drive alias—instant access to all of your files.

Trip Gotelli

Apple Business Development Executive

JWP Information Systems

—Dallas, Tx.

Author: R1991

### Expanding folders

My favorite thing to do with the Finder:

1) Choose Find... from the File menu. Click "More Choices."

2) Pull down to "kind" and "folder." Click "all at once" and select just one disk drive.

3) Click OK. This may take a while.

but it'll select every folder on your main drive.

4) Hold down the command key and press the right arrow key on the keyboard. This expands all the levels of all the folders.

5) Choose Print Directory from the File menu. What you get is a complete printout of your whole hard disk directory!

To collapse the hierarchy, type Command-A-command-left-arrow. That closes all the folders. Then go back to the view you like (by icon, small icon, etc.)

Author: ESPINOSA1

I can suggest an easier way to expand all of the folders on a hard disk. Just view the root by name (any non-icon view) Select All (cmd-A) and then cmd-option-right arrow. cmd-right (or left) arrow (in a non-icon view) means expand (or collapse) the selected items (really only applies to folders).

cmd-option-right (or left) arrow means expand (or collapse) deep. This is on page 4 of the Finder shortcuts.

P.S. Collapsing deep means that the sub-folders will be collapsed next time they are viewed (in a non-icon view).

Author: DOUGLASS1

A quick way to collapse all *f* is to select view by icons and then go back to view by name.

Author: LAW.MANSHEL

### Changing Cursors

Is there a way to replace the normal "system busy watch" with the "spinning globe" that is used in AppleLink?

Author: NICKLEY1

Use the new ResEdit, available from APDA and in stores. Add the CURS resources, then change acur 6500 to point to them.

Author: ESPINOSA1

### Editing Filenames

You can double-click in an icon's name to launch it. This is VERY convenient when you have desktop icons across the bottom of your screen and a window covering all but the names, but what if you want to just edit the name ... ?

On my FX, it takes a second or more before the cursor appears. In the meantime, if you start typing the new name, you are really

selecting other files.

Author:

ASTAR.DEV

The Finder is generally a bit slow at updating the cursor. If you click in the name or press Return, it takes a second for the cursor to change into an I-beam but you can actually start clicking as soon as the frame appears and the highlighting changes to the highlight color.

Author: JENS

The problem with the delay when clicking on an icon name is that Finder is waiting to see if this is a single click (-> edit the name) or the 1st click of a double-click (-> open the icon). This may be considered a design bug. Single and double clicks should be compatible enough, so that you don't need to wait.

Author: RANSON

Yes the 1 second delay is very interesting. I think it is to allow you to double-click the file name so you can open the file. However, if you move the mouse immediately after clicking the name, you can also start editing straight away!! Presumably the Finder realizes that you can't be double-clicking if you have moved the mouse so it then allows you to do the next most logical thing (ie editing).

Author: MICROSPOT

The interface is a little weird since the visual feedback lags the actual operations, but then, as long as you can edit the name right away, I won't complain.

Author: ASTAR.DEV

Now I know how to edit the centre of a filename immediately, wiggle the mouse. However, if you click on the name, only the name, and then depress the right or left hand arrow keys, you will zip to the respective end of the filename. Rather handy if you just want to add a "" or version number to the filename. I must admit to being a little frustrated to the System 7.0 finder after being used to 6.0.5. I have double clicked on a filename to open the file many times. Don't you think once we have learnt the tips and tricks our productivity using system 7 will be better? Is this new terminology a 'mouse-wiggle', like shift-clicking and double-click? Author: SMITH42

If the click is with the icon's name, the Finder should assume you are editing, if you are clicking within the icon itself, then it can wait for a double click. This is the single most irritating thing about the new finder, and it leads people to believe the new finder is a dog, performance-wise, even though that may not be true.

Author: CORRADO

In order to edit a file name, after selecting the icon, hit the "return" key which will put you in the edit mode. Once you are finished editing the name, you can hit the return key again and you will toggle out of the edit mode. You can then use your tab or arrow keys or the alphanumeric keys to move through the desktop without using your mouse. Hit the return key if you want to edit the next highlighted icon.

Author: C5390

Now, the preceeding discussion seems to imply that the new name-editing feature is not quite exactly perfect. Is there some chance that it might be altered somewhat? Another similar gripe, perhaps noted elsewhere on this board: Moving icons around in an icon view now has some extra animation associated with it. This makes the operation - a very harmless and common one - \*much\* slower than before. I suspect the animation was added for clarity, but I'm afraid its only effect is to slow things down. Any chance that these two new "features" might be reconsidered? Thanks for opening up this important new forum. Keep up the great work. System 7 is a gem.

Author: DRATMAN

Word Finder DA by Microcolytics which comes with Microsoft Word 4.0 can be made to work with Word under System 7 by installing it within the Word application with Font DAMover 4.1. Before clicking the Open button, hold down the Option key to allow Font DA Mover to find the Word application. You can also install it the same way with Font DA Mover 3.8; however, you'll have to boot on the 800K Disk Tools diskette to do it.

The above instructions were provided to me by Microsoft Technical Support.

Author: NO999



# Committee Member Self-Portrait

## Press Officer

### Mike Dawson BSc (Hons)

Being a new committee member I was asked what things I felt were needed in the magazine and the user group as a whole. One of my suggestions was to publish a profile of the people that make up the committee. It is not always possible for the members being spread throughout the UK to meet members of the committee. Chances to talk are few as we are all busy people. The AGM is one of the 'must go to' meetings and many committee members can be found manning the Apple2000 stand at the MacUser show in November.

So I felt that the committee could be perceived as a bit remote only being seen to be voted in each year and put a lot of work into the magazine. Although it must be said I have found all members of the committee very approachable in the past.

I suggested that a committee member profile be published in the magazine that would give the members an idea of the people at the helm of our user group. So me and my big mouth have given me the job of doing the first "committee member profile".

So let me introduce myself. My name is Mike Dawson so no surprises so far. I was born at an early age in deepest, darkest Kent more years ago than I care to recall. I am currently employed (I avoid the word 'work') by an international petro/chemical construction company as a Senior Control Systems Engineer. This does not however involve programming Macs, worse luck. My work is designing process control systems for oil refineries, oil rigs, pipelines etc. across the world.

This does give me the occasional opportunities for travel to the 'off the track' parts of the world and to see some of the bits that tourists would never get near (nor would want to).

In fact I have been ill in Algeria, ill in Indonesia and to be fair, ill in the USA and food poisoned while travelling by air. So much for the jet set life.

Now on to more interesting things, computers. My interests in computers goes back farther than my memory allows. The very first computer I purchased was called a UK101. This was a British 'clone' of an American

computer called the Ohio SuperBrain. It was a 6802 processor based computer with 8K basic and 8 whole Kilobytes of RAM. This was BIG in 1979 and so was the screen with 40 columns, text only. The UK101 was a do-it yourself kit which I built, an earlier hobby being electronic project construction. Unfortunately I quickly outgrew this 'massive' 8K memory and tired of the cassette tape programme loading which



took an age. At this time I was a poor student and could not afford anything more. However a summer job at an oil refinery provided the funds for an Apple II+ with one floppy disk drive. This was heaven and I was really hooked now and my thirst for knowledge increased exponentially. However that was in the days before Apple UK and information was in short supply. So I went to the 1981 Personal Computer World Show at the Novatel Hotel, Hammersmith, London. I went looking for programmes and to see what was new. Here in "Club Alley" was my first encounter with BASUG, the British Apple Systems User Group. This was renamed some years later as Apple2000 as we are still known. I joined up at the show and have been a member ever since. Gradually my interest in the Apple II+ waned and I acquired the yoke of a

mortgage so funds were very limited. This restricted my finances so I could not buy the computer of my dreams at that time, a Mac Plus.

Again a refinery related job, this time overseas, provided the funds for a new computer as my interest was still alive. I was thinking of an Apple IIGS but the American magazines I was reading contained letters pleading for more speed and memory. This was only one year after it's launch. I was put off the IIGS (sorry Ewen) especially as Apple UK did not want to openly support it. So I swallowed hard, went the whole hog and bought a colour Mac II computer system. My interest was rekindled and burned even brighter than before.

The Mac was the answer to a dream I never knew I could have. I have been in love with it ever since. This involvement has grown to the point it is now. I help out at the user group's stand at exhibitions, write articles, write HyperCard stacks for the group and now I'm on the committee. So if you have just purchased your first Mac be warned it could be a slippery slope down to total devotion.

#### Likes :-

- Being given money (preferably not in exchange for work)
- Cantonese Cuisine
- Walking and cycling in the countryside.
- Oh, and I almost forgot - Macs !

#### Dislikes :-

- IBM's
- IBM clones.
- Being ill
- Being away from my Mac's

My job in the committee is to publicise the user group and spread the word about who we are and what we do. Many people at the MacWorld Expo at Birmingham in March had never heard of us as we don't advertise in the national magazines. Such advertising is prohibitively expensive for a non profit user group like ours. So I have to get the word out to magazines, companies and new Apple dealers.

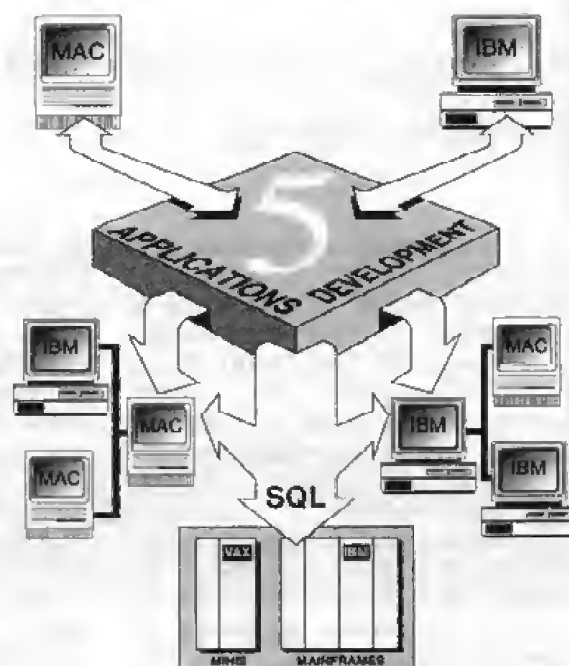
I would like to ask all fellow members to write in if they know of a company or educational establishment which uses Macs and might be receptive to a mail shot. If you wish to remain anonymous please say so in your letter and your identity will be protected. You can contact me on TABBS, Compuserve and of course, by Royal Snail.

Thank you for your time in reading my ramblings and may your Apple computer grow old and prosper. yes I'm a Star Trek fan as well.

# Blyth's Omnis 5

A complete application development environment

*& powerful front-end  
for MACs and PCs  
that provides access to  
all major SQL  
database servers.*



There is a frenzy of front-end activity these days and much of it is graphical. A variety of front-ends has recently been introduced, and the market generally appears to be making a rapid migration toward Windows as the front-end environment of choice.

But Omnis 5 actually takes a big step beyond just being a Windows front-end for database servers. It is the only product which can create truly impressive GUI applications which can front-end all major SQL platforms, and is completely portable between PCs and MACs (and soon OS/2 and UNIX). Yes... Omnis applications built on one platform will actually run on the other without changing a line of code.

The SQL platforms supported by Omnis include: DAL, Oracle MAC and PC, Sequelink, Gnosis, Sybase,

IBM extended edition and SQL Server (from Microsoft/Ashton Tate/Sybase). Available for MAC and PC.

Omnis allows you to simultaneously connect to dissimilar SQL databases throughout an organization which can be located on Vaxs, mainframes and #LAN networks. With Omnis you can implement a cross-network, cross-DBMS-vendor join. The programming interface within Omnis is almost identical and allows users to send and retrieve data between Omnis and the host database and access the SQL Data dictionary in a vendor-independent manner. Omnis can also store graphic objects in SQL databases.

Omnis 5 under Windows 3.0 offers you a graphic user interface, DDE, fantastic context-sensitive help, through the Windows help

facility, multiple open Windows, 'point and click' programming, multi-platform compatibility and SQL connectivity... all of which adds up to a highly productive integrated applications development environment and a compelling reason to make sure your people are benefiting from Omnis 5 for Windows 3.0.

***For a demo pack call  
or fax us today!***

**FREE PHONE  
0800 289621**

Or for further information  
Call 081- 346 9999  
or Fax 081- 346 1716.

**BLYTH  
SOFTWARE**

# SimEarth

A review of this product from Maxis  
by Peter Kemp.

"Is this a random world or did you planet?"

Software usually falls into one of two camps - serious or frivolous - and rarely do the twain meet. However SimEarth, from Maxis Software, manages to combine both. It's a game in which there are no winners and losers - simply different outcomes.

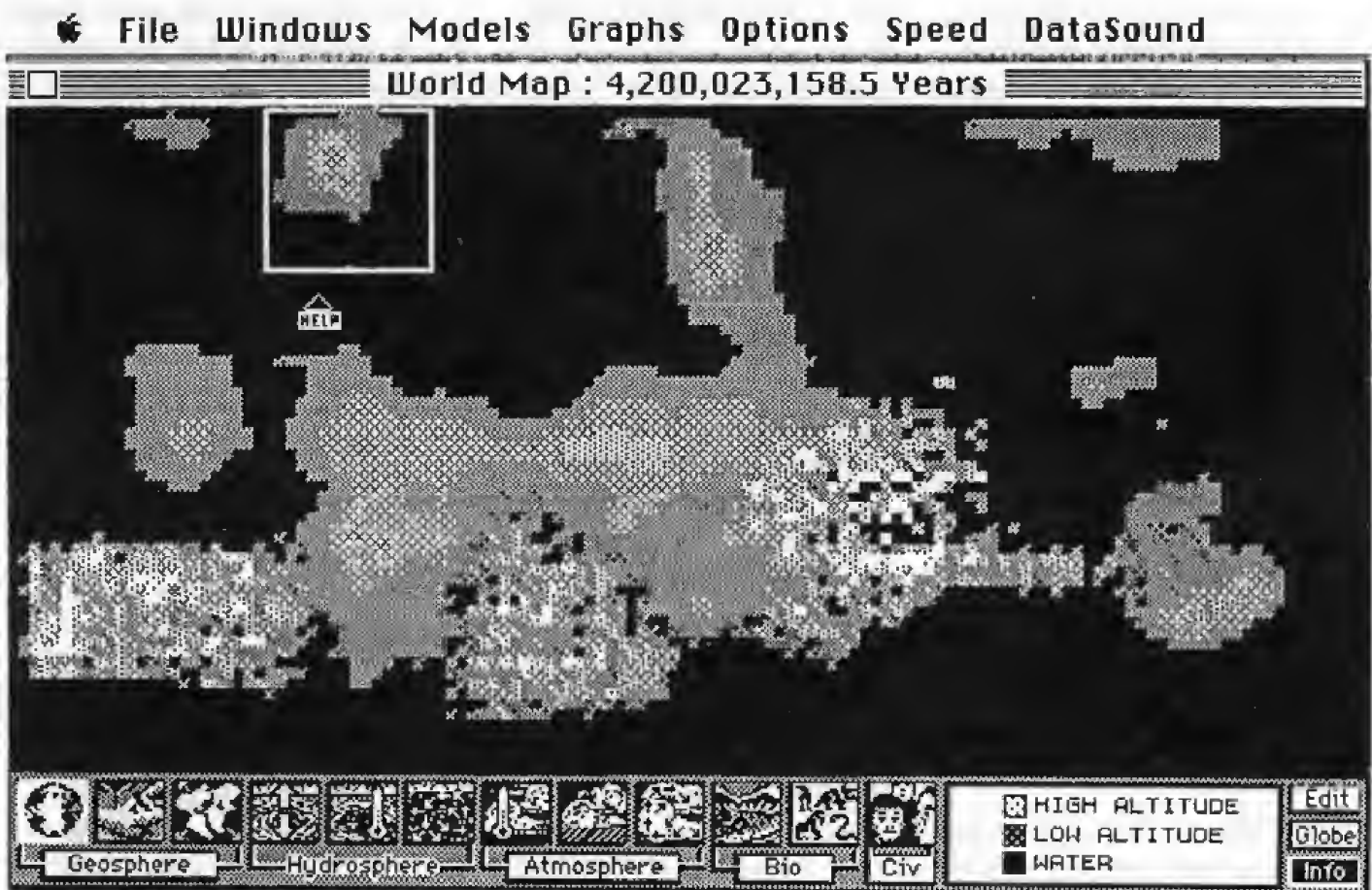
In the simplest terms, SimEarth allows the player to control the destiny of a planet. From barren rock, the player nurtures an environment conducive to the evolution of life, fosters the growth of intelligent species and tries to

protect them from the consequences of their own folly. Whew!

The game allows the player to experiment with every conceivable parameter that could influence every step of the long journey from cooling rock to a star colonising race. What is the effect of cloud albedo on rainfall? What will happen if an ice meteor crashes on the planet? What happens to the weather as the level of pollution rises? What happens in a nuclear winter? How to prevent plagues (or the greenhouse effect) from destroying civilisations?

As you might imagine, the answers are interlinked. Cause and effect run riot, to a degree far beyond anything seen before. (For example, a planet where intelligent life is allowed to evolve too quickly may not have generated sufficient fossil fuels to support an industrial revolution. And technology to exploit nuclear fuels can't develop unless the civilisation has successfully negotiated the industrial age. So unless things are planned and executed properly, bang goes another bunch of intelligent apes.....)

So let's start at the beginning. The game (or rather "software toy") comes on two 800K disks, one version for colour machines and one for black and white. I used both on my LC and they ran fine, although the colour/greyscale version had an extra degree of subtlety that I preferred. In addition there is a 200+ page book outlining the theory behind the game (of which more anon) and a very thorough explanation of all the information available to the player. The game itself isn't protected, but you have to enter a keyword from the book each time





## Technology Report

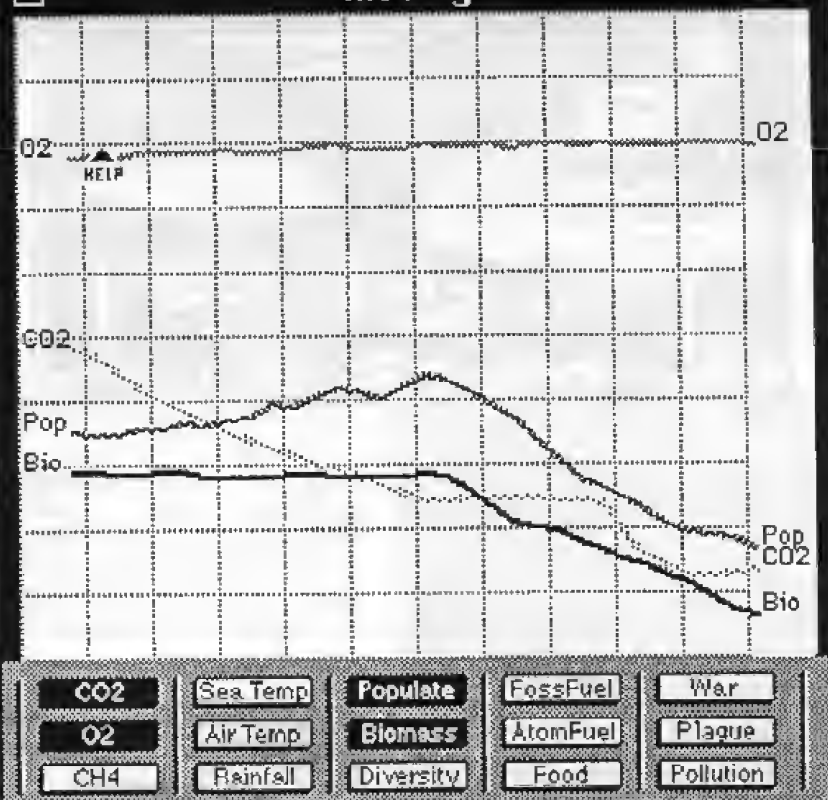
Sentient Type: Mammal  
 Highest Tech: Atomic Age  
 Median Tech: Atomic Age  
 Population: 442 million  
 Life Quality: Bad

Habitats

Work	* Eff%	= Energy	Allocation
30	65%	= 1739	572
26	41%	= 963	1077
16	46%	= 662	718
06	70%	= 376	789
00	80%	= 0	572
78hrs/wk		3740	

Current Task:  
 Interstellar Migration

## History



the game is started. A minor irritation and wonderful for trivia fans. (Did you know Saturn has a diameter of 74,580 miles?)

Maxis describes its product as a "software toy", in an effort to avoid having it classified as simply a game. It's a fair point - SimEarth goes to some considerable lengths to educate as well as offering entertainment. The fundamental premise is that planet Earth can sensibly be regarded as a single entity - a sum greater than its constituent parts. This is a gross simplification of the so-called "Gaia" theory, proposed by James Lovelock. In Gaia, the organisms and their material environment together constitute a system which is able to self-regulate climatic and atmospheric conditions. (This hypothesis can, among other things, offer an explanation for the fact that over the past 3.6 billion years that Earth's mean temperature has remained constant and favourable for life in spite of a rise in output of heat from the sun of 25%.)

From this starting point, Maxis has developed a system simulation toy. The player is presented with a set of rules and tools that describe, create and control a planet. Part of the challenge is to figure out how the system works and take control

of it.

There are rules covering:

- Chemical factors:
  - atmospheric composition;
  - energy management;
- Geological factors:
  - climate;
  - meteoric bombardment;
  - continental drift;
  - earthquakes;
- Biological factors:
  - formation of life (!);
  - evolution;
  - food supply;
  - biome types and distribution;
- Human factors:
  - wars;
  - civilisation;
  - technology;
  - waste control;
  - pollution;
  - food supply;
  - energy supply and usage.

There are the tools, which allow the player to:

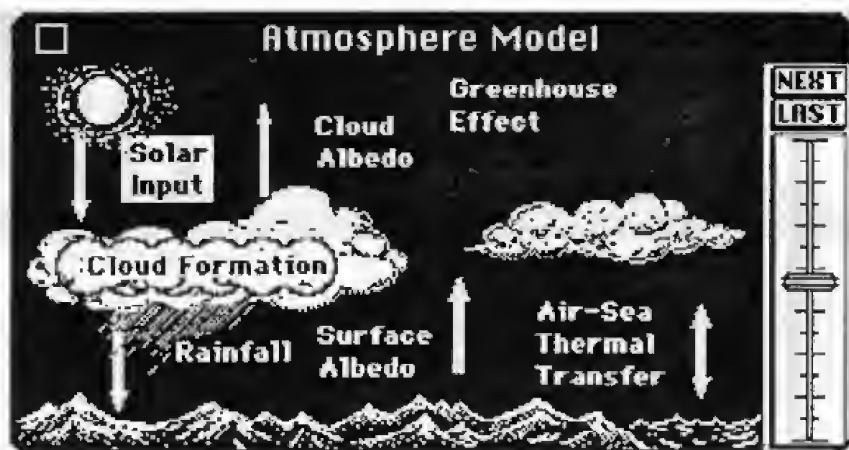
- create a planet in any one of four time scales;
- physically modify the landscape of the planet;
- raise mountains and sink abysses;
- trigger events ranging from hurricanes to volcanoes;

- plant biomes and life-forms anywhere on the planet;
- nurture a species to help it evolve intelligence.

And of course, there is a massive amount of information available to the player to help him decide how the rules are working - and what tools to use. The amount of information is staggering. A few of the many available windows have been dotted around the text - and these are only a small sample of what's available. There is much more information lurking in the background - right down to such things as the magma flow, prevailing winds and a topography of the ocean bottom. My current civilisation has run out of nuclear fuels and is having to do manual labour, burn wood for energy and generally having a hellish time. The biomass is falling (because the CO2 level is too low) and the population which depends on the biomass is therefore dropping as well. A classic vicious circle.

The player can select one of four historical periods:

Geologic: covers the last 4.5 billion years and the main influences are continental drift,



atmosphere (or, rather, the lack of it!) and the evolution of single cell life;

**Evolution:** covering the last 600 million years, the player is concerned with the developing climate, the transition to more complex lifeforms and establishing biomes;

**Civilised:** over the past 10,000 years, the player attempts to establish civilisations in harmony with the prevailing climate and biomes;

**Technology:** in a timescale of a mere 100 years, the player must try to prevent the sentient creatures from destroying themselves, control pollution and - if possible - position them for interstellar migration.

And the player isn't restricted to any one planet - there are eight different scenarios. Depending on how hard you want to make it, each scenario can be played with one of four "budgets", ranging from small (impossible!) up to unlimited (just about possible!):

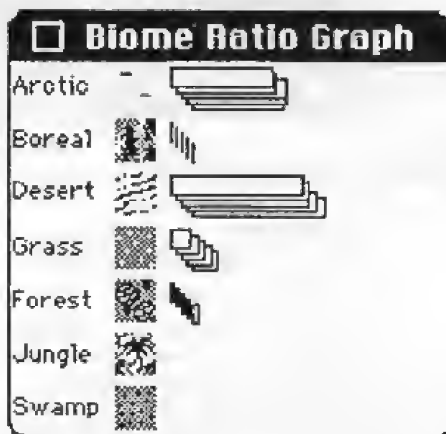
**Random:** Create your own world from scratch. As easy or as hard as you want to make it.

**Aquarium:** The existing life forms cannot evolve in the absence of land masses.....

**StagNation:** A population stuck in the Stone Age. They need to be helped to move to larger land masses and increase their level of science.

**Earth (Cambrian):** Watch the

movement of the supercontinent Pangea, the split into Gondwanaland and Laurasia and then (if you like) give evolution a kick in the pants and develop intelligent life to go for the ride.



**Earth (Today):** For masochists. Ensure there's sufficient food, clean air, plentiful energy and no more war. (See what I mean about being for masochists?)

**Mars:** In the next 500 years, the player needs to make the planet habitable. Today, the average temperature is minus 53 degrees Celsius, there's no atmosphere and the only thing you've got plenty of is ..... rock.

**Venus:** A planetary greenhouse, with an average temperature of 477 degrees C. The player has to make it habitable.

**DaisyWorld:** A formal scenario for investigating the Gaia theory. Dealing with only one life-form and one climatic feature, it offers a straightforward demonstration of

the connection between life and environment.

This is a very robust piece of software and it needs to be - on more than one occasion I've left it running overnight, to see whether a particular Eden can really last twenty five thousand years. It's incredibly resource hungry and grabs just about every available clock cycle. Sometimes this can be a nuisance, as it is necessary to click and hold down the mouse button in a close box, until the game catches up. If you're used to just clicking and then moving off to do something else, this can get to be very irritating. And as you might expect, the screen updating requirements for colour slow the game even more. I'd love to have an A4 screen so I could have all the various graphs I want on screen at the same time. It's not a big problem, but players with a standard 9 inch screen will have to do a fair amount of window swapping in order to keep up with what's happening.

But these are minor niggles. SimEarth is like SimCity with all the wish-lists come true. If you loathed SimCity then I advise you to avoid this program. Likewise if you like arcade style action. For everyone else - especially those who like to think about what they're doing - I suggest putting this on your shopping list right now. You won't play it every night, but it's a game you'll find yourself coming back to time and time again. Destined to become a classic.

info

**Product:** SimEarth

**Publisher:** Maxis

**Available from:**

MacLine

Tel: 081- 643 4626

**Price:** £ 49.00

**Value:** ★★★★★

**Performance:** ★★★★★

**Documentation:** ★★★★★

# Ron's a winner!

## Results of the Apple2000 Win-a-Mac Draw

The much-publicised "Win-a-Mac" Draw, which was free to all Apple2000 members, took place at the Annual General Meeting in April 1991.

The entries were not opened but all were put into a GPO sack, and the winning entry was drawn by the youngest attendee, Gavin Thompson.

The winner was announced by our Chairman, Ewen Wannop.

A number of members were

present to witness the Draw, but they did not include the winner — Ron Rushton.

Our Secretary, Norah Arnold, had the happy task of contacting Ron and arranging for collection of his Mac Classic.

Ron has been an Apple2000 member for many years, and he was delighted with his prize — as his letter shows:

Berkhamsted  
Herts HP4 3NS

Dear Norah,

I am writing to say how thrilled I was to win the Macintosh Classic Computer in the Apple2000 draw. I could hardly wait to get home after collecting the computer from you and start playing with it.

So far I have resisted the temptation of rushing out and buying further equipment for it. I have made do with the single floppy disc drive to learn the basics and since my present printer is a parallel one, I have not even had the benefit of using a printer with it. However, I have thoroughly enjoyed my first experience of the Macintosh and am keen to press on further along the learning curve.

I am intending to employ the computer for my own personal use and therefore hardly need forty megabyte of memory (I think). However, to upgrade the Classic with an internal hard disc and an extra megabyte of RAM seems to be such good value. What do you think? I shall certainly need a second disc drive. Also I am contemplating buying one of the Apple StyleWriter printers rather than changing the interface on my existing home printer, which I shall need for the time being for use with my Apple IIe. Again what do you think?

The only software I want to buy for the moment is reasonably priced good, but not too sophisticated, word processing, database and spreadsheet. I was thinking of Microsoft Works, but should be pleased to receive your recommendations.

As you know I have been an Apple II fan for many years. My first Apple II was a 48K with a dual voltage of 110 and 220 volts and the floppies were thirteen sector. I think this dates it at about 1980. Since then we have used Apple IIs in the office for our own internal database and for accessing external databases via a modem. We have also used them for accounts and for a limited amount of word processing. Currently we have four Apple IIs which is not a bad ratio for an office of ten people. The machines have proved extremely reliable over the years.

Until now I have shied away from the Macintosh, mainly because I felt the Apple II was a hobbyist's computer and the Macintosh was not. Also there was no compatibility between the two, which meant that there was no way I was going to switch to the Macintosh in the office with all the expense that entails in labour costs alone. Having now been so fortunate as to win the Classic, I am sure that I am going to enjoy it, particularly now that I am semi-retired and therefore have more time to devote to it.

Finally, permit me to say what an excellent job the Apple2000 team are doing. I thoroughly enjoy the magazine and needless to say I shall now be reading the second half as well as the first.

Yours sincerely,  
Ron Rushton



Ron Rushton receives his prize of a Macintosh Classic from John Arnold



Ron Rushton takes home his new computer





# On Location

A review by Pam Wilson of a desk accessory that allows you to find files quickly.

Why would I need to buy a desk accessory to do that, you may ask, 'I've already got 'Find File' and System 7.0's added more scope to that'. Well, that was my initial thought, but read on because there's a lot more to 'On Location' than just finding a file!

I was asked to review this product because of the variety of Macs in my possession: my original MacPlus - now with 4mgb of RAM - with 20mgb Rodime and Qisk 210mgb hard disks; my 8/80mgb IICI - the DTP machine; and the newest a 5/40mgb IISI. I quickly realised when I came to do the test

that they are well overdue for a clean-up (a condition that seems to arise every couple of months!), but makes them a very good testing environment.

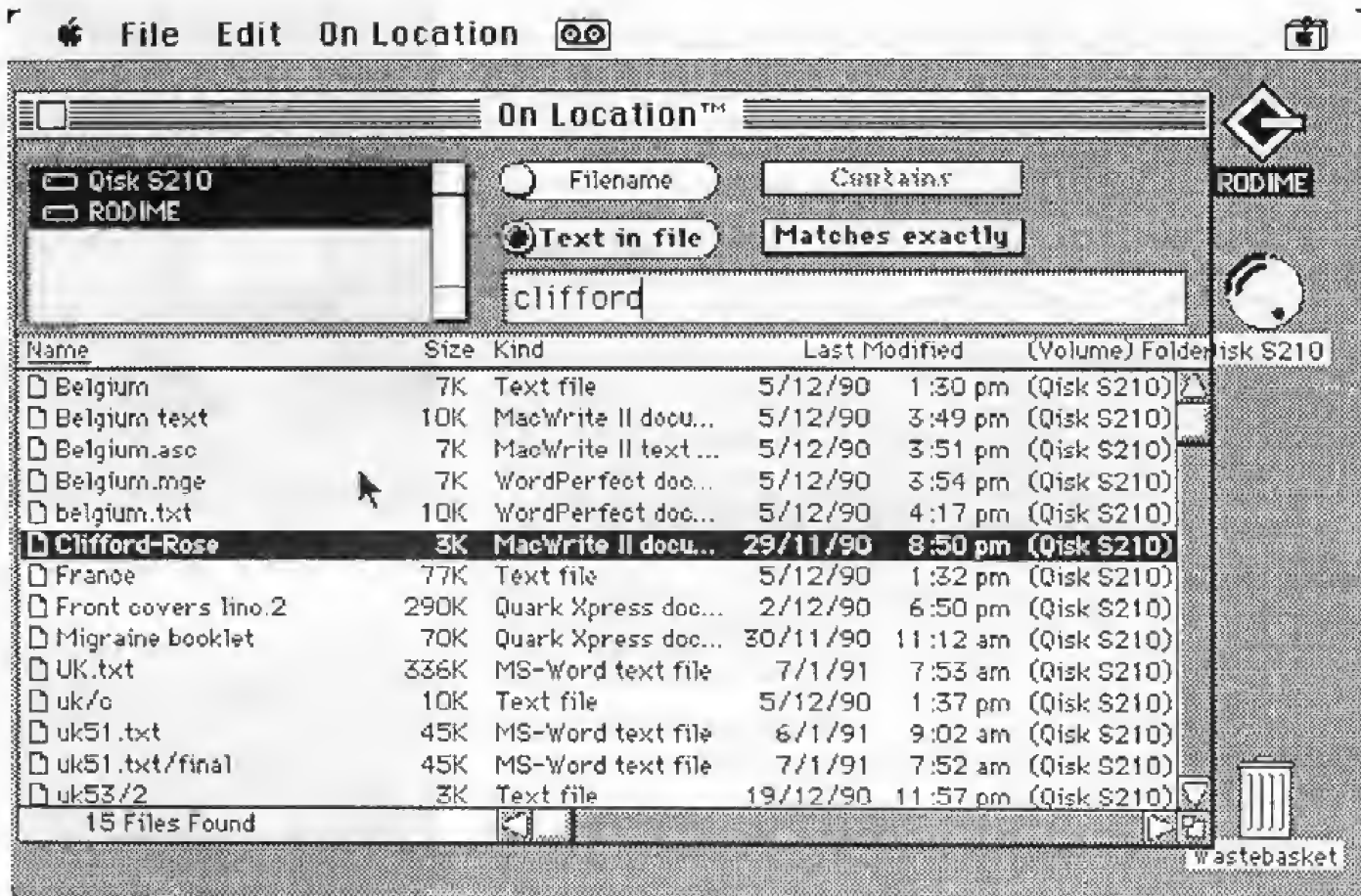
So, how does 'On Location' work? Well, initially it builds an index of all the files on your hard disk (or floppy disk or CD-ROM), or just a selected part of the disk if required. The default index contains all filenames and all the words in files containing text, or you can customise the index, but that comes later.

Once the index is in existence, part of 'On Location' runs in the

background and updates it as changes are made. You can then select it from the Apple menu and find a file by name, or by word(s) contained within any file which contains text, view the file - even if you don't have the application that created it - and if you do then you can open or print the file from within 'On Location'. If that isn't enough, you can also copy, move, delete, or rename a file, create a new folder, and copy text to the Clipboard from a viewed file, all without returning to the Finder.

Anyway, back to installation. The programme comes on one 800k disk, with a slim (24 page) manual. The manual is well presented, and takes you step by step through installation, aided by "screen-dump" style illustrations. The disk comes complete with a copy of Font / DA Mover for copying 'On Location' into the system folder. Three files plus a Claris folder are then copied into the system folder (there is advice given here if you already have a Claris folder in there), you Restart and are ready to go.

On the basis that a full index would take the longest, away we went. The manual advises that



indexing takes 15-45 minutes for a typical hard disk (is there such a beast?) but my tests seem to suggest that the speed of the machine has a lot to do with it as well.

The index tells you the number of files, folders, and files containing text, the elapsed time taken, along with the usual Macintosh progress bar. The table shows the results of my indexing.

If you wish you can create a Custom Index by clicking the Custom button on the Create Index window.

This allows you to select the alternatives of either 'File names only', the default 'File names and text of standard kinds of files', or 'File names and text of specified kinds of files' - the word 'kinds' on this third alternative is a button which opens up a window listing the standard text files on the left, and a window on the right which shows a list of file kinds such as database, MacPaint etc. which are not included, but any can be moved across - in my case I moved OmniPage text documents over on the IIfx. You can also choose to change

(AppleShare) network INTT - and had to wait until the indexing had completed. You can copy an index across a TOPS or AppleShare network to the OnLocation Indexes folder on the remote machine(s), but only the Macintosh that owns the index can re-index or auto-update it.

Finding a file was impressively fast - for filenames there are four search criteria:

Contains,  
Matches exactly,  
Starts with,  
Ends with

- and to locate by Text in File: Matches exactly, Matches root of (eg. entering study would also find alternatives such as studies, studied, studying).

'On Location' starts searching as soon as you start to type in the box (the word does have to be at least three characters long), and you do not have to wait for the search to end to view a listed document. The illustration on the previous page shows a search of both the Rodime and the Qisk210 for files containing an exact match

the IIfx to System 7.0! 'On Location' appeared to work happily, but I subsequently realised that although it was set to auto-update in the background, the test version - 1.0.2 - wasn't. I went in to Re-index, and it recognised the changes that had been made, and quickly re-indexed just the changed files in less than 3 minutes. A quick phone call to On Location in Cambridge, Mass. confirmed that they were aware of the problem and are dealing with it and a new version will be available.

In conclusion - out comes the credit card, I'm hooked - I work with a large number of different text files, and regularly forget the filename so it's going to save me valuable time - and would you believe the guarantee, and I quote, "... if you're unhappy with On Location for any reason during the first year you own it, just return it for a full refund. We don't want any unhappy customers".

System requirements:  
MacPlus, SE, Portable, II, or higher  
with at least 1mb of RAM;  
System 6.0 or higher.

Machine/Disk	In disk	Files	Folders	Text files	Time taken	Index size
IIfx	24mgb	550	72	281	54min01secs	273k
Rodime 20mgb	15.5mgb	880	52	571	28min43secs	243k
Qisk 210mgb	52mgb	1,545	82	1,350	2hr1min49secs	865k
IIfx 80mgb	69mgb	1,228	142	769	17min49sec	516k

As a comparison, I custom indexed for filenames only - the IIfx took 11secs and the Qisk210 1min03secs!

the location of the index from the default System Folder to the 'Root Directory of Volume', thus allowing two separate indexes to exist at the same time, and there we come to the only point with which I could fault the manual.

The words 'Root directory' and subsequently 'Top-level directory' were no mystery to me, because I have PCs as well by necessity, but for someone who has only ever used Macs this could be confusing - a minor snag in an otherwise excellent manual.

An interesting side effect popped up during indexing the MacPlus - the IIfx hung on boot-up - it couldn't load the Data Club

for the word 'Clifford' - 15 files were found.

The On Location menu contains options to View File, View Previous File, View Next File (with quick keys) and shows the file in its appropriate font if that is available, taking you straight to the first instance of the required text. You don't have to search the whole volume, you can restrict to a single folder if required.

Having found the file you were looking for, you can copy text, whilst in View mode, to the Clipboard for use in another file, or launch the application by Command-Double Clicking the filename.

So now the final test - I upgraded

info

Product : On Location  
Publisher : On Technology  
Available from :  
MGA SoftCat  
Tel: 0797 226601

Price : £ 99.95  
(inc. VAT & p&p)

Value : ★★★★★  
Performance : ★★★★★  
Documentation : ★★★★★

# Battlefront Game System

## A review of SSG's Battlefront Game System by Peter Kemp.

Whatever people may think about playing war "games", a good simulation system is a powerful tool in understanding a particular campaign - and it can give an appreciation of the terrible dilemmas faced by the commanders of both sides.

One such is Strategic Studies Group's "BattleFront" system. Each package comprises two (800K) disks containing the system and various scenarios, a scenario booklet and a tutorial booklet, which also describes how to generate your own scenarios. Both monochrome and colour (4 bit) scenarios are provided. The game will run on the full family of Macintoshes, from the Plus to the LC. It requires 1Mb of RAM (2Mb for colour), is MultiFinder compatible and is not copy protected. (Hurrah!)

For each scenario, the booklet provides one or two pages of historical background and an analysis of the battle as it happened. It then identifies the objectives for both sides (the player has the choice of playing either side, against the computer or

against another human) and also offers suggestions for varying the standard scenario. These "what-ifs" allow the player to consider the impact of such possibilities as the impact of poor weather, stronger air support or what might have happened if reinforcements had arrived at different times.

Each game lasts for a set number of turns, with four turns per day. The military forces the player commands are battalion sized units, organised into larger formations to reflect a proper military hierarchy. A regiment can have up to four component battalions and a division can have up to four component regiments, as well as four independent battalions, which can be attached to any of the division's regiments.

Depending on the scenario, the player can command up to three divisions, for a total of 60 battalions. There are fourteen different types of battalions, ranging from standard infantry, armour and artillery types through to airborne, engineer, anti-tank and anti-air, assault gun and

tank destroyer.

The battlefield is a field of hexagons up to 40 by 40. The ground scale varies from 500 metres to 8km, depending on scenario. The screen shot shows a typical game in action, with a number of different units and terrain in evidence.

The purpose of the game is to use the forces at your disposal to capture and hold as many of the objectives as you can, to destroy as many of the enemy battalions as possible - and to stop the enemy doing this to you.

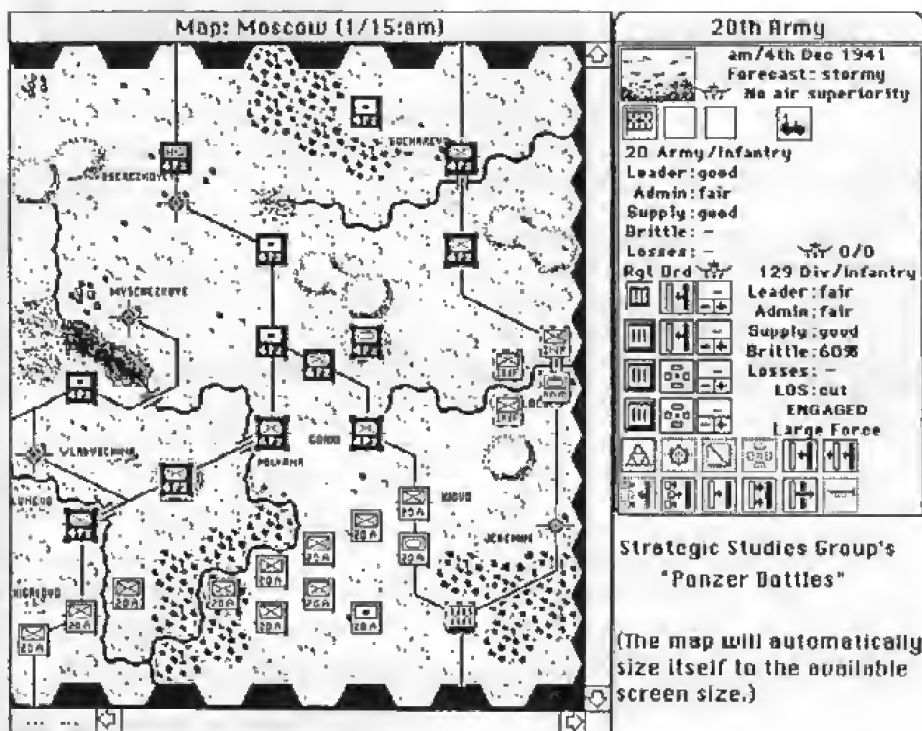
One of the great strengths of this game system (even though it can be very irritating at times!) is that the player acts as corps commander and issues his orders at regimental level. Battalions will then position themselves in order to best carry out the regimental orders. It is vital to understand this command separation - from the player's lofty position, he has little direct control over the location of individual battalions.

A wealth of information is available to the player when deciding what orders to issue - from the state of a battalion's supply lines, its morale and its brittleness through to the amount of air cover available. Regimental orders are given from the twelve options available (depending on circumstances), including orders to assault, probe, defend, retreat and delay the enemy. All orders are given via a straightforward graphical interface which is exclusively mouse driven.

If appropriate, the machine will issue orders for the other side and then resolve the conflict, scrolling the map to show what's happening across the battlefield. Units may advance or retreat and casualties are recorded. Much of this is shown on the screen, but the player is strongly advised to check things out afterwards, when planning his next move, as it might be necessary to reassign divisional assets - particularly artillery - for maximum effectiveness.

At the end of the game, the computer calculates the number of points each side has accumulated in killing the enemy and reaching (and holding) specified objectives. The side with the highest number of points is the "winner".

Using this system, SSG has provided a number of packages. So far, I've bought two of them: "Panzer Battles" and "Halls of Montezuma".





# Preston's AppleCentre is in the Village

With fewer than 60 AppleCentres throughout the UK, you could be forgiven for thinking that they must all be in the bustling commercial centres of major towns and cities.

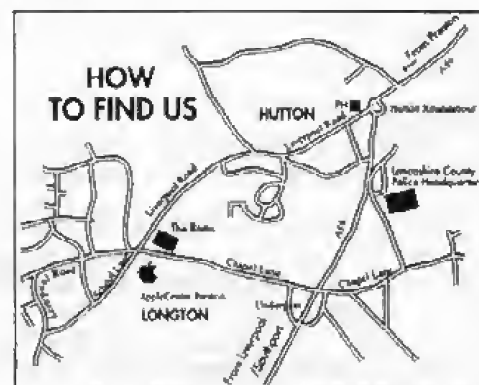
The truth is, most of them are — but Preston's AppleCentre is different. Situated in the picturesque country village of Longton, with private parking just a few feet from the front door, customers can visit without collecting a ticket. Once inside they will be impressed, not only by the superb corporate AppleCentre decor, but also by the friendly reception and caring attention from Apple dedicated staff.

- Five complete Apple systems on permanent display
- Eight Workstations in our air-conditioned Training Centre
- Twelve Apple dedicated sales and support staff
- Special 'Quiet Room' facility
- The new low cost colour Macintosh now available from stock!



AppleCentre<sup>SM</sup> Preston

Apple, the Apple logo and Macintosh, are trademarks of Apple Computer, Inc. AppleCentre is a servicemark of Apple Computer U.K. Limited.



## Holdens Computer Services

The Mansions, Chapel Lane, Longton,  
Preston, Lancashire. PR4 5EB.  
Tel: (0772) 615512 Fax: (0772) 615919

## OUR INPUT WILL IMPROVE YOUR OUTPUT

"Panzer Battles" covers battles in the German/Russian theatre during the second world war. The scenarios are: Minsk (1941), Moscow (1941), Kharkov (1942), Prokhorovka (1943), Kanev (1943) and Korsun (1944).

"Halls of Montezuma" is a battle history of the US Marine Corps, covering seven of their most famous engagements. Orders of battle include Mexico City (1847), Belleau Wood (1918), Iwo Jima (1945), Korea (1950) and Vietnam (1968). This package also contains a full size colour map of the various scenarios. Not essential, but handy.

The screen shot is from Panzer Battles and gives a good idea of the sort of information the player is required to understand and manipulate. This is not for the fainthearted - a typical scenario can take 90 minutes - more if your opponent is human.

This a game system that repays an investment by the player - the more you put into it, the more you'll get out. Although it can be played a bit like an arcade game, it'll become boring

within a couple of games. Pay attention to detail, however, and hidden subtleties appear - the logistical difficulties of avoiding bottlenecks when reinforcements appear, the need to allow weary troops to regroup, the importance of keeping battalions together for optimum efficiency and much, much more.

Add to this the ability to edit every aspect of each scenario (as well as being able - indeed encouraged - to design scenarios from scratch) and you really do have excellent value for money.

Recommended in the strongest terms.

Where to order:

All SSG software is available direct from the company for \$A55.00 including airmail (they take Visa and Access). At the current exchange rate, that's about £24, with VAT and import duty on top. I got my games from Mac's Place in the US, paying \$28.00 plus shipping etc. My particular copy of HoM had a corrupted sector on one of the disks

which meant I could play from the master, but not copy it to my hard disk. A letter to Australia, when sending in my registration card, brought replacement disks by return of air mail. (SSG has online support on Compuserve [ID: 72040,34] as well - and questions are likely to be answered by one of the game's authors!)

info

Product : Battlefront Game System

Publisher : SSG (Australia)

Available from :

SSG

P O Box 261

Drummoyne

NSW. 2047

Australia

Price : approx. (A\$50)

Value : 

Performance : 

Documentation : 

# Icon Vaults

## The Nature of the Icon Vault and How it Works

by Paul Schliesser

Readers of this article should be familiar with using ResEdit to create and install sets of color icons... Building an Icon Vault requires some basic understanding of BNDL resources as well.

### BNDL basics

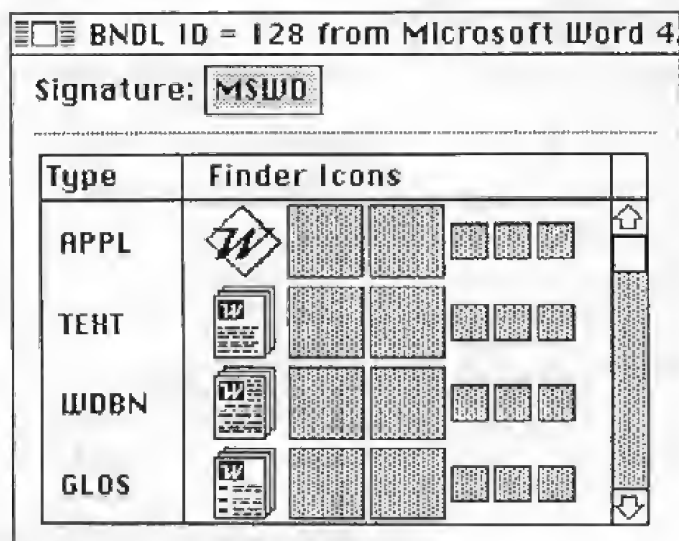
Every kind of Macintosh file is identified by two, four-character codes that indicate its creator and its type. The creator type identifies the application that the file belongs to, such as ALD4 for PageMaker 4.0 or MSWD for Microsoft Word. The file type indicates what the file itself is, such as APPL for an application or TEXT for a text file. Every kind of file has its own unique code.

This primer will use Microsoft Word as an example, showing how the Word Icon Vault was built. Here's a list of some of MS Word's file types:

	Creator	File type
Application	MSWD	APPL
Text file	MSWD	TEXT
Document	MSWD	WDBN
Glossary	MSWD	GLOS
Dictionary	MSWD	DICT
Help file	MSWD	WHLP
Prefs	MSWD	WSET

All of these files have the creator type MSWD, because they all belong to the MS Word application. Even though many other applications would have files of the same type (such as text files), the creator would be different for those files. At the same time, an application would be able to look at another application's file and know if it could be opened. All word processors, for instance, can open TEXT files even if they didn't create them. Proprietary formats (like styled Word documents) would have a unique file type that only its parent application would recognize and open.

Each application has the icons inside of it for all of the files that share its creator type. There are also resources called the BNDL and FREF that contain a list of these file types and assign each type of file to its proper icon. The open BNDL window for Microsoft Word is shown below:

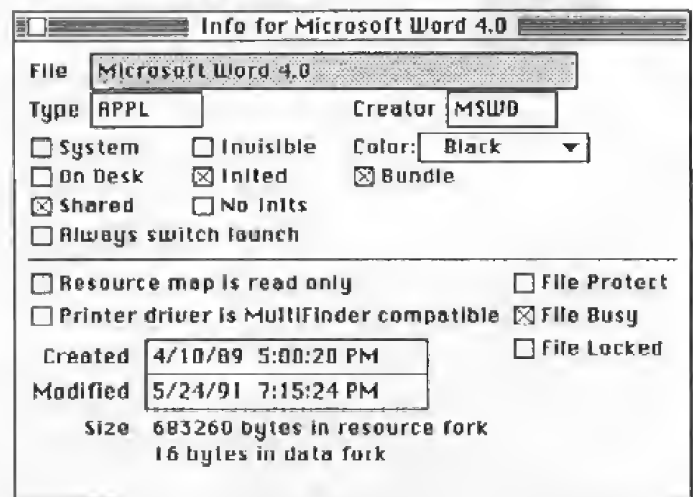


Notice that the creator type for Word (MSWD) is set in the signature window at the top, and there is a list of file types and their icons in the scrolling window. When the MS Word application is first copied to your hard disk, the Finder looks at the BNDL, FREF and ICN# resources and stores copies of them in the invisible Desktop file on your hard disk.

Whenever you open a folder in the Finder, the Finder looks at the creator and file types for any files in that folder, looks up the proper icons in the Desktop file, and then displays those icons on the screen. When you double-click a document, the Finder looks in the Desktop file for the location of a file with the same creator and the type APPL, and then launches that application for you. If it can't find an APPL for that creator type, you will get an appropriate "application not found" message.

In order for the Finder to know that it should look for icons in the Microsoft Word application, the file needs to have its bundle and init'd bits set. You can look at or change the settings with ResEdit or with a utility like DiskTop.

Below is the "Get Info" for MS Word from ResEdit's File Menu:



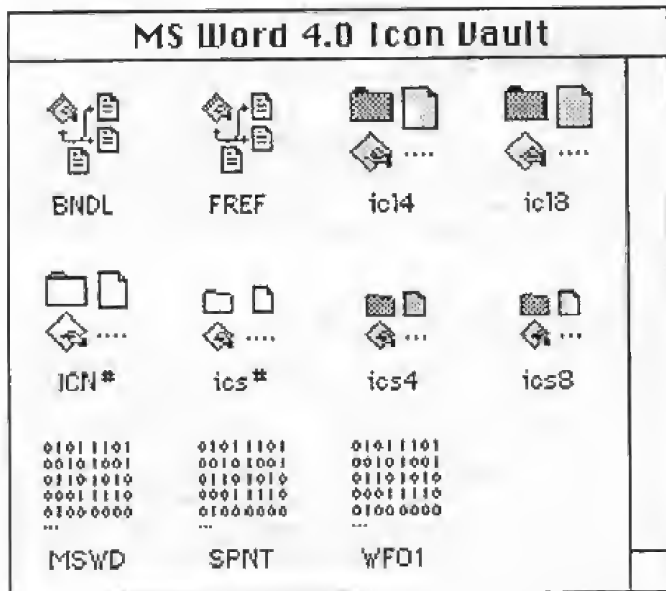
Any file that contains icons you want the Finder to look at needs to have the bundle and init'd bits checked.

Note also that this is where Word's own creator and file types are set — it is an application (APPL) and it has its own creator type (MSWD).

### Icon Vault Theory

An Icon Vault under System 7 presents its icons to the Finder before the application itself does. Since the Finder has already gotten the icons for that creator type and stored it in the desktop, it will ignore icons that the application has. The MS Word Icon Vault is nothing more than a file containing a duplicate of Word's FREF, BNDL and ICN# resources plus a complete set of color icons to go with them. The contents of the MS Word Icon Vault is shown at the top of the next column.

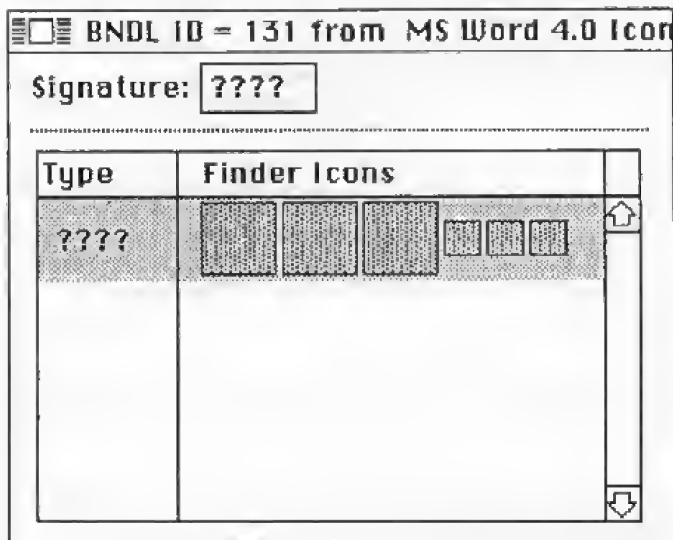
The only parts of the Vault that you need to be concerned with are the various icon families and the BNDL resource. Everything else will be taken care of for you by ResEdit as you create the BNDL.



### Building an Icon Vault

First, create a new file with ResEdit and then paste your ICN#s, icl8s and other color icons into it. The numbering of the icons does not need to match the numbering of the icons in the original application as long as the numbers link the corresponding versions of the same icon in each family (the ICN#, icl8, etc. need to have the same number). This is exactly the same thing that you needed to do with Icon Colorizer and SunDesk, and you can just copy the icons for your new Vault out of your old color icon files if you want to.

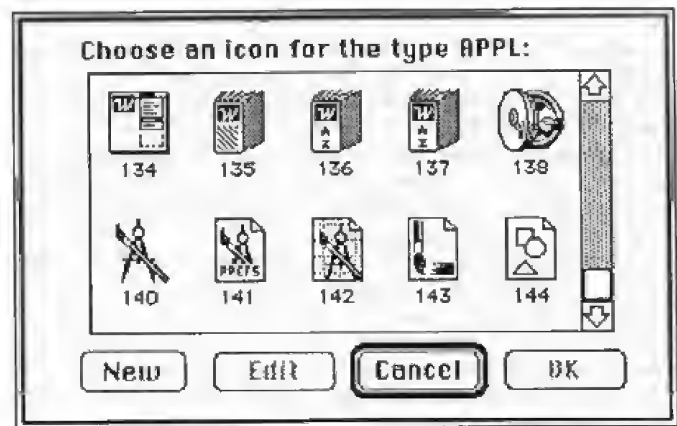
Now create the BNDL resource. Select "create new resource" (command-K) in the open window for your new Icon Vault, and select BNDL from the scrolling list or else type it in the field provided. Open the new BNDL resource and do a command-K again to create the first actual BNDL. This first BNDL will show up as a resource number in this window. Double-click on the number to open it:



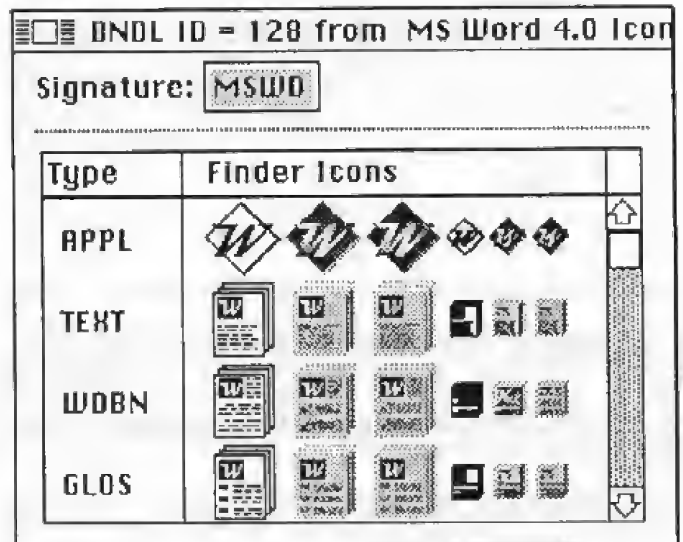
It would be a good idea to open your copy of MS Word with ResEdit and open its BNDL side-by-side with your new one, to use as a guide. Replace the ??? in the signature window with the creator type of the application (in this case MSWD).

Look at the MS Word BNDL window shown earlier and compare it with the one above. Each time you do a command-K in this window, you will create a resource to link another file type to its icon. Replace the ??? in the scrolling window with the first file type that you want to set (in this example APPL for the MS Word application). To

assign the icon, click on one of the gray boxes to the right, and the window below will pop up for you to select from.

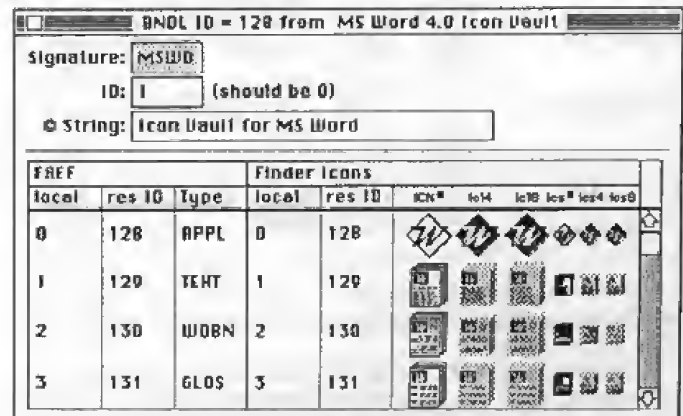


Scroll this window to find your icon, and then double click to select it. Keep creating new file types by doing command-K and filling them in, until you are finished. The complete BNDL with all of the file types is shown below:



Notice that, unlike the BNDL for the Word application itself, you can see that all of the icons in the family are shown here — ICN#s, icl8s, ics8s, etc. You can quickly check that all of your icon families are complete by scrolling down this window and looking for empty squares.

Select "Expanded View" from the BNDL menu and you will see the more detailed window, thus:



It's very important to change the ID number at the top of this window to a number other than zero. You will get























a message telling you that versions of the Mac OS earlier than 7.0 will not recognize a non-zero ID number. This is good, since this will "hide" the Icon Vault's BNDL from System 6. If your Vault ever ended up on someone else's Mac with older System software, or if you switch between System 6 and 7 on your own Mac, the Icon Vault will cause all of your Microsoft Word documents (or the docs for whatever application the vault had BNDLs for) to become linked to the Vault instead of to the application, causing file-launching problems. If you change the ID number, though, the Vault's BNDL will become invisible to the older System and there will be no problems.

Also note that in this view, you can assign icons by typing their ID numbers in the appropriate column instead of clicking on the gray squares (also, sometimes when using the gray squares, some icons do not show up in the window for some reason). You can also use the appropriate selection in the BNDL menu to pick icons. To delete a file type, click between columns so that the cursor turns into a "+", and hit the delete key.

You can now proceed to add a new BNDL to your Vault, if desired. Close the BNDL that you have been working on, go back to the main BNDL window, and create more with a command-K. The window should look similar to this:

BNDLs from MS Word 4.0		
ID	Size	Name
128	108	
129	60	
130	68	

The MS Word Icon Vault above contains the BNDLs and icons for MS Word, SuperPaint 1.1 (which was originally sold as part of the Word 3.0 and 4.0 packages) and WordFinder, which was also included. The BNDL for WordFinder is shown below:

BNDL ID = 129 from MS Word 4.0 Icon	
Signature: WF01	
Type	Finder Icons
TH01	    
TH02	    
TH03	    
ICUT	    

Notice that this BNDL has the signature for WordFinder at the top, and the ID number (not visible in this view) has also been changed.

There are any number of other BNDLs that it would make sense to put in a Vault together. If you are building an Adobe Illustrator Vault, you could also include BNDLs for the Adobe Separator and DrawOver programs, and for earlier versions of Illustrator such as 88 and 1.1, so that your old

documents will have color icons instead of having generic document icons.

The BNDL for WordFinder, which was shown in the previous column, also includes the icon and file type for the Vault itself. All you need to do is add an icon for the Vault, assign it the creator type ICVT (or anything else that you want to call it), and set the same creator type and file type in the Vault's Get Info window when you set the bundle and init'd bits. This will be explained in the next section.

### Making Vaults QuickKeys-Safe

The original Icon Vaults had only one BNDL resource in them, had the creator type of the application that they worked with and the file type ICVT. For instance, an MS Word Icon Vault would have the creator MSWD and the type ICVT. This is known as a Mark I Icon Vault.

Shortly thereafter, it was discovered that many BNDLs could be placed inside of the same Vault and it would still work. The Vault still had the creator type of the main application that it colorized and the file type ICVT. This is a Mark II Icon Vault.

When they were only about a week old, a serious problem was discovered with Icon Vaults. Since the Vault's BNDL resources are used to provide icons for a certain application and all of its files, the Vault is linked to those files by the Finder. This caused QuickKeys to have problems launching files, giving you a "file not found" error message. You can see that the Finder is linking things to the Vault simply by doing a "Get Info" of one of the colored files; a Word document, for instance, would be listed as an "MS Word Icon Vault document", instead of an "MS Word document".

The simple solution to this problem was to make the creator type of the Icon Vault different from the application. This was another interesting discovery—the Icon Vault file itself does not need to have the same file type as any BNDL inside of it, so the file and creator type of the Vault do not matter as long as they do not duplicate the creator type of any existing file. If there was a duplication, the same file launching problems would occur.

Important: the creator type and file type of the Vault refers to the settings in the ResEdit "Get Info" window for the Vault. The BNDL for each application still needs to have the creator type of that application as its signature.

In the case of the MS Word Vault, the Vault's own icon was placed in the WordFinder BNDL, and the Vault was given the WordFinder WF01 creator type. This way, both Word and SuperPaint have their icons colorized by the Vault, but neither will have any file-launching problems caused by the Vault having the same creator type as they do. This will not cause a problem with WordFinder because WordFinder is a DA with a permanent thesaurus file, and does not have any documents that would be launched by QuickKeys.

You can also "hide" the Vault from the main application by using the creator type of an old version of the application that the Vault is designed to colorize, such as an old version of Illustrator, PageMaker or FreeHand.

By the way, please make your own, original icon for the Vaults you create. Please do not use anyone else's—let this icon be your "signature".

A Vault with multiple BNDLs and a creator type different from the main application is known as a Mark III Icon Vault.

Tony Dunn has done several sets of Icon Vaults that are similar to Mark III Vaults, but do not contain an icon for the Vault itself. They also all have the same creator type, and will have a special Icon Vault that will provide all of his Vaults with their icons. Tony has also been experimenting with various alternatives to the Mark III Vaults as described above. Since this is still an ongoing experiment, it will not be covered further here.

### A Summing Up of the Icon Vault Creation Process

Create a new ResEdit file and paste in your icon sets.

Create a new BNDL resource for each creator type that this Vault will colorize. Open the BNDL for each original application and use it as a guide. Link each of your icons to a specific file type in a BNDL.

Put several BNDLs in each Vault, and put an original icon for the Vault itself in one of them (but not in a BNDL that contains files likely to be launched with QuickKeys). Assign the file type ICVT to that icon. [The MS Word Vault has BNDLs for MSWD (Word), WF01 (WordFinder) and SPNT (SuperPaint 1.1). The Vault's icon is in the WF01 BNDL.]

Open the Get Info window in ResEdit's File menu and give your Icon Vault the file type ICVT and the creator type of the BNDL that you put the Vault's icon in. (The Word Vault has the type ICVT and the creator WF01.)

Set the bundle and init'd bits in the Get Info window.

That's it — you've just made an Icon Vault. One more simple step; when you give your Vault file its final name, put one or two spaces as the first characters of the name.

### OK, So What Do I Do With It?

Installing an Icon Vault is very simple. Either put it in the same folder as the application that it goes with, or put it in a folder on your boot disk with all of your other Icon Vaults. (If you do this, also put a space or two in front of the folder's name).

Now, rebuild your desktop: restart your Mac and hold down the option and space keys until you get a message asking you if you want to rebuild the desktop on the first disk that the Mac has mounted. Say yes, and continue to say yes to the dialog box for each disk that you have. Keep in mind that this may take several minutes if you have a lot of files on your disks, and that this process will erase any "get info" comments that you may have.

During the desktop rebuild, the Finder will trash its old desktop files (where the BNDL and icon information for all of the files on that disk are stored) and rebuild them from scratch. The Finder goes along, file by file in alphabetical order, looking for files with their bundle bits set. Every time that it finds one, it will record the BNDL and icon information in that file and go on to the next. If it finds another BNDL later on with the same creator type, it will ignore it and just keep the one it already has.

If your Icon Vault is named so that the Finder sees it before it sees the applications that the Vault goes with, the Finder will keep the color icons that it finds in the Vault and ignore what it finds in the application. This is the reason for putting the space in front of the Vault's name, because a name with a space in front of it will be read before a name starting with the letter A.

If the Vault has its own icon, you can tell if it loaded correctly by looking to see if its icon is displayed. Occasionally, it can be difficult to get a Vault to load. Sometimes putting the Vault at the root level of your boot disk will do it if all else fails. Each time you try the Vault in a new place, rebuild the desktop.

### Advantages to Using an Icon Vault

Here is a brief rundown on some of the advantages to using an Icon Vault to install your icons as opposed to pasting them into an application with ResEdit:

You are not tampering (or encouraging those who might download your icons to tamper) with the insides of applications. In addition to the danger of inexperienced users messing around with ResEdit, some applications — such as PageMaker 4.0 — don't like to be altered at all. PageMaker does an internal diagnostic and will present you with an annoying dialog box each time it's launched, informing you that it has been tampered with, even if you only pasted color icons into it. Some types of programs, such as disk utilities and virus checkers, may disable themselves

if they see that their resources have been altered, since this is often a symptom of either serious damage or a virus infection.

Since you can easily install an Icon Vault simply by dragging it onto your hard disk and rebuilding your desktop, you can swap icon sets as your mood dictates. Drag your new Vault on, and drag the old one off (or compact or stuff the file to "hide" it from the Finder) and rebuild the desktop.

Icon Vaults can be used to colorize icons even when the original applications are not there. Most people only have one work processor, but almost everyone who downloads files has a lot of MacWrite and Word files. Now, as long as you have an Icon Vault for these programs, you will see proper, color icons for these files, not just the generic document icons.

If you update to a new version of a program that you use now, keep your old Icon Vault, and it will continue to color your old documents.

### Conclusion

I hope that this little primer answers most of your questions. If you want to know more about ResEdit and BNDLs, try the HMG™ ResEdit Primer 6.0 (which should be available online) or the ResEdit manual published by Addison Wesley.

I would like to extend my special thanks to Stoney Baillard, who has been a tremendous help in figuring out how and why Icon Vaults work, and to Tony Dunn who is trying out new ways of building them.

And thanks to all of you who have shown so much interest in the Icon Vaults.

Paul Schliesser 71610,3370 (CompuServe)

This file was downloaded from CompuServe.



## Chameleon Systems

### Mac Classic 1MB 1-FDHD at the CLASSIC price of ONLY:

# £499<sup>+VAT</sup>

*That's right! A brand new machine and the only thing grey about it, is its price! Now all you need is our phone number: 0775 85481*

*Supplies for Apples of all kinds, at a price you can afford. Chameleon Systems, Cuckoo Lane, Pinchbeck, SPALDING, Lincs. PE11 3XT*

*This offer is subject to availability.*

# Launch of ClarisWorks Integrated Software

## Press release from Claris

Claris Corporation have announced ClarisWorks, the revolutionary new integrated software for Macintosh personal computers that enables users to manage their work, rather than their software. ClarisWorks is designed to be the perfect software solution for first-time buyers of desktop and portable Macintosh computers, in business and education, the company said.

ClarisWorks features a breakthrough in interface design, with seamlessly integrated "environments": word processing, graphics, spreadsheets, charting, database management and communications. Unlike existing integrated products, which force the user to move among different "modules", ClarisWorks lets users access tools and features from within a single document. This unique design allows more natural computing, so users can add text, graphics, calculations and charts to their documents at any time.

For example, a ClarisWorks user can create a one-page document containing multi-column text, colour graphics and a spreadsheet table and chart. To create this, the user never leaves the page: the wordprocessing environment is traded for spreadsheet tools simply by clicking on the always-available tool palette. As the user selects different objects on the page, the menu bar changes appropriately.

ClarisWorks will be demonstrated for the first time publicly at MacWorld Expo in Boston.

The product includes powerful word processing and page layout options including multiple columns, footnotes and linked text frames for creating professional-looking documents.

A comprehensive set of powerful graphics tools based on the MacDraw II Tool Box, and an array of pop-up colour, pattern and pen palettes will enable users to design and manipulate graphics quickly and easily.

Borrowing from FileMaker Pro, ClarisWorks offers a comprehensive set of database management capabilities that enable users to instantly start creating and modifying databases and generating professional reports.

ClarisWorks also features powerful spreadsheet capabilities that are based on Claris Resolve, including 96 mathematical, statistical, financial and trigonometric spreadsheet functions, worksheet size that supports 4 million cells, and an extensive set of charting types to provide users with the power to execute calculations and analyse data easily.

And ClarisWorks offers an extensive portfolio of connection settings, terminal emulation and file transfer tools that allow users to connect to host environments and on-line services.

ClarisWorks users will enjoy unique growth-path advantages, since the user interface and environment are so consistent with those of other Claris products. For instance, users that develop needs for more sophisticated spreadsheet power will find that they already know how to use Claris Resolve. And since both products feature consistent menu


commands and user interface, users will be able to take advantage of their learning investment and be instantly productive. Similarly, users can painlessly upgrade to MacWrite Pro, MacDraw Pro and FileMaker Pro for more dedicated word processing, graphics and database management power, respectively.

First time Macintosh owners, small- and medium-size business users, and education users will find ClarisWorks to be their one-stop general productivity tool. And with ClarisWorks' on-line context-sensitive help and in-box training tools, users will be productive from the start.

In addition, with more than 20 XTND file exchange translators users can open, insert, save and edit files from a wide range of applications across multiple platforms.

ClarisWorks will ship in the UK during the fourth calendar quarter of 1991, through the normal Apple dealer channels.

The suggested UK retail price for ClarisWorks is £195. Current UK owners of Claris AppleWorks, AppleWorks GS, Microsoft Works, Symantec GreatWorks, and RagTime can upgrade to ClarisWorks for £80.

For upgrade order forms and information in the UK telephone Freephone 0800 929005. Users in the Republic of Ireland should phone Freephone 1800 732732. 

## Fontographer 3.3


### Press release from Altsys

Altsys Corporation have announced the shipping of Fontographer version 3.3 which now includes the ability to read and write TrueType fonts for the Apple Macintosh. Apple Macintosh users can design and edit TrueType fonts, as well as convert their existing PostScript language typefaces to TrueType. The TrueType fonts that Fontographer produces are automatically drawn and hinted using the full capabilities of the TrueType format.

Known as the standard for type design and editing on the Macintosh, Fontographer provides the means to develop typographical character sets. As a specialized graphics editor, Fontographer gives users the ability to produce TrueType fonts for the Macintosh and IBM-compatible PCs as well as PostScript fonts for the Macintosh, the PC, and the NeXT. Designers can modify existing typefaces, incorporate PostScript artwork automatically trace scanned images, and utilize flexible tools to create designs from scratch.

Fontographer 3.3 works on all Apple Macintosh computers with a minimum of 1MB RAM.

Founded in 1984, Altsys is known for having developed the first commercially available software products to: design, convert, and generate PostScript art or fonts (Type 1 and Type 3); design and generate PostScript typefaces with hints; design and generate Type 1 PostScript fonts which are ATM-compatible; convert PostScript typefaces (Type 1 and Type 3) into editable line art, and import Macintosh artwork to create a font. Metamorphosis Professional, also developed by Altsys, was the first commercially available program to generate TrueType fonts.

Contact MacLine (081-643 4626) for the U.K. prices of Fontographer 3.3, and of the upgrades from previous versions of Fontographer. 





# More than 1950 CD-ROM Titles Worldwide

Press release from TFPL

TFPL, London, and UniDisc of California, publishers of the internationally acclaimed CD-ROM Directory, announce that there are now more than 1950 CD-ROM titles worldwide.

The mid-year update of The CD-ROM Directory on disc provides up-to-the-minute details on 1960 CD-ROM discs from all over the world with 622 new titles added since the first edition of the disc six months ago. These include multimedia titles in all formats including CDTV, CD-I, DVI and CD-ROM XA, in all areas of interest from publications for the consumer market to professional databases.

General interest titles, covering leisure and recreation, games and entertainment, now make up the greatest number of titles (15.6% of the total) reflecting the recent emergence of multimedia discs aimed specifically at the home consumer. Full details are given on subject matter, type of information, system requirements, software updates, publisher and price.

The CD-ROM Directory on disc also describes the work of 2,150 companies worldwide, an increase of 310 companies from the last edition. Contact information is given on publishers, distributors and information providers, as well as suppliers of products and services including hardware, software, system integration, mastering, replication and consultancy.

Additional databases on the Directory supply information on CD-ROM drives, and provide extensive listings of conferences and exhibitions, books and journals.

Subject headings include: General Interest, Leisure & Recreation; Arts & Humanities; Computers & Computer Programs; Biomedicine, Health & Nursing; Science & Technology; Business & Company Information; Banking, Finance & Economics; Government Information & Census Data; Advertising, Design & Marketing; Libraries & Information Science; Maps, Map Data & Geography; Crime, Law & Legislation; Earth Sciences; Languages & Linguistics; News, Media & Publishing; Directories; Life Sciences; Intellectual Property; Military Information and Weapons — to name but a few!

Formats: CD-ROM Discs (i.e. IBM, Apple Mac compatible); CDTV; CD-I; DVI; CD-ROM XA.

A full range of statistics relating to the current state of the CD-ROM industry is available from TFPL Publishing.

Available Now! Price: £70 plus delivery (plus VAT at 17.5% in the UK)

Contact: Mark Bell, TFPL Publishing, Task Force Pro Libra Ltd, 22 Peter's Lane, London, EC1M 6DS. Phone: 071 251 5522; Fax: 071 251 8318.

## Clocktower

Callers welcome, but please phone first.  
Add £5 carriage to any goods less than £150.  
Add 17.5% VAT to these prices - Apple 2000 members deduct 10% from the final total. VISA & ACCESS accepted. Prices and offers are subject to availability and are subject to change without notice.

### NEW PRODUCTS FOR MACINTOSH FROM APPLIED ENGINEERING

Authorised Dealer

LC FASTMATH WITH FPU £170 • DATALINK LC WITH FPU SOCKET, MNP5 & FAX £265  
IISI QUICKSILVER WITH FPU SOCKET AND SE30 STYLE CONNECTOR FOR SE30 BOARDS £280  
IISI CACHE-IN £210 • CACHE-IN 50MHz £1350  
MAC II QUADRALINK GIVES 4 SERIAL PORTS £200  
PORTABLE MACRAM (up to 8 MEG MEMORY) FROM £320 1Mb • DATALINK PORTABLE WITH MNP5 & FAX £210  
CLASSIC MACRAM £62 • 0Mb • £112 - 1Mb • £250 - 3Mb  
3.5" HD 1.4 meg DRIVE FOR MAC £220.00  
3.5" 800k DRIVE FOR ANY APPLE £170  
DATALINK MODEMS FROM £160  
(FAX AND MNP5 OPTIONS FOR MAC & IIGS)

#### BLUEPRINT

The re-manufactured toner cartridge that needn't cost the earth. Pre-paid mailer for refilling empties in every recycled box. Long life drum replacement, gold-plated corona wires, top quality toner, longer life and fully tested, sealed cartridges are packed in metalised bag with swab and fuser pad just like original. No waste, no pollution, no mess, no waiting for returns.

Series I (EP) £55 Series II (EP5) £57

New Higher density DTP version soon - call for brochure

AMR 3.5" drives £140  
(1.4Mb/Mac 800k/Apple II)

Replacement batteries  
for any machine - call

### NEW APPLE EQUIPMENT REPAIR SERVICE - CALL FOR DETAILS

Syquest R45Mb Cartridge drive £490 including one cartridge.

80Mb removable socket Sperra cartridges - call.

Hard drives - from 40Mb - £275 to any size/price

CD ROM and optical drives - call

All CLARIS products and upgrades available  
Beagle's FLASH economical networking for Mac £110

3.5" DISCS DSDD from 40p each in 20s  
HD from £1  
Sony bulk 3.5" DSDD from 52p HD from £1.20  
Sony & 3M Boxed 10s DD £6.50 HD £13  
LASER TONER (HP branded) £68  
Imagewriter ribbons black £3.35 colour £7.25  
Apple branded £8.25  
Original and compatible supplies for any make of printer, copier or fax machine, call for quote.

See advertisement earlier in this magazine for more products and offers



## Clocktower

84a Weston Park, Crouch End London, N8 9PP.

Tel. & Fax: 081-341 9023

Callers welcome, BUT PLEASE PHONE FIRST!

# Color MacCheese

## A review by David Evans of version 2.05 of this 32 bit paint package.

Color MacCheese is the cheapest 32 bit (16 million colours) paint package currently available. It is widely available at a cost of around £70 plus VAT. Its nearest rivals are twice that price and it compares well with the 32 bit heavyweights like Studio 32 and PixelPaint Professional. These cost £300-400. It works on all colour Macs with 8 bit colour cards or better, including the LC (with caveats - see below). 32-Bit Quickdraw 1.2 or higher is recommended and is necessary to take advantage of the anti-aliasing function. It comes on one 800k disc with a simple 48 page manual, ten pages of company history and philosophy and thirty eight pages about the application. There is an on-line help window that can be toggled on and off and a 32 bit colour picker that displays dithered colours if you work on an 8-bit colour card (256 colours) machine.



### The Toolbox window.

The toolbox contains the usual colour drawing tools, plus a 'rake' tool for scattering pixels at the edge of fills, a 'water drop' tool to blend or smooth edges and lines and a 'transmogrifier' tool that will add texture to solid fill areas by changing individual pixels to harmonising shades and hues. Most tools have adjustment dialogue boxes accessed by double-clicking on the tool.

**Individual tools.** (Left to right, top to bottom)

### The Lasso and Marquee tools.

These tools work as Apple intended, the lasso selecting irregularly shaped items ignoring the background colour, the marquee selecting a rectangle. Double clicking on the lasso selects every object on the screen excluding the background, double clicking the marquee selects the entire window. The lasso tool is also used to create a multi-coloured brush. Holding down the command key as you drag your selection around continuously paints with it - unfortunately somewhat jerkily.

### The Eraser tool.

The eraser rubs out to the background colour. Double clicking erases the entire document.

### The Paint brush.

The paint brush is limited to a maximum size of 16 by 16 pixels. Larger brushes can be achieved by the use of the lasso tool (see above). It is not particularly smooth in action unless moved slowly. On the the LC it is quite jerky even when used with the

latest software FPU emulator. Double clicking allows you to edit the shape of the brush within the 16 by 16 pixel limit and toggle the 'continuous brush' option on and off. If you adapt brushes these adaptations are saved with the application but there is no facility to save 'sets' of brushes.

### The Shape tools.

There are the usual rectangle, rounded rectangle, irregular polygon, oval and curve tools which may be switched from outline only or filled with the selected colour or pattern. The switch is carried by selecting from the bottom set of three boxes in the toolbox. The rounded rectangle may have its corner radius specified via a dialogue box.

### The Line tool.

Double clicking on this tool allows size adjustment via a dialogue box.

### The Pencil tool.

Draws in the selected colour. Double clicking will zoom into the document, Shift-double clicking will zoom out.

### The Spraycan.

Sprays in the selected colour. Double clicking brings up a dialogue box where the size and the flow may be adjusted.

### The Paintbucket.

One click on the mouse button fills in the selected colour but this MacCheese version offers several extra effects. Clicking and dragging when using the paint bucket creates a graduated fill that follows the direction of the drag. Clicking and holding down the mouse button creates a centred gradient fill. Double clicking presents a dialogue box that allows you to set the fill tolerance from 'Exact' to 'Vague'. There is a 'rendered' fill available which fills from a highlight on the surface of a sphere. It is very slow and is only recommended for small objects.

### The Lettering tool.

The lettering supports Adobe Type Manager and also offers anti-aliasing. Anti-aliasing only works with translucency turned off and cannot be applied to full colour patterns. Usually it improves the look of text but the algorithm

used can lead to an 'out-of-focus' effect.

### **The Magnifying Glass.**

Zooms in and out.

### **The Eye Dropper.**

The eye dropper selects colours from the document for colour matching and also changes line and background colour when used with shift and option keys.

### **The Rake tool.**

Rakes or scatters pixels by swapping with adjacent pixels. Useful at the edges of object to fuzzy the edges.

### **The Water Drop.**

Gives the effect of watering down the drawing. There is a dialogue box (double-click) to change the size of the tool and modify its effect from 'subtle' to 'dramatic'.

### **The Transmogriker.**

This tool adds texture to plain colour fills. It replaces pixels with others of a close hue. Double clicking provides a dialogue box to modify its effects.

### **The Auto-scroll switch.**

Switches automatic document scrolling on and off.

### **Reduce/zoom.**

Two switches to quickly reduce and zoom. Delta Tao have modified their toolbox from the description given in the manual and these two appear to be 'fillers' as they do no more than provide the facilities of the magnifying glass without having to hold down the shift key to reduce.

The bottom six boxes contain switches to turn translucency, transparent patterns, anti-aliasing on and off and to select filled, borderless and outline shapes. Below them is a full-width box showing the current background, border and fill selections.

### **The Menus.**

MacCheese has most of its functions available via the toolbox window and offers only a Windows control menu, a Selection menu dealing with selected objects (rotation, flipping, blending and scaling and adding to patterns)

and a short Options menu. In addition to the standard File and Edit menus.

### **Using MacCheese.**

In use MacCheese does not respond so smoothly as its more expensive competitors. On a Mac II brushes worked well when moved slowly but did not respond quickly enough to fast movement. I missed an adjustable-width freehand line drawing facility, the line drawer is only a straight-line tool. The spray-can is adjustable in both flow and size but these need improving. I use spray cans for shading solids and freehand sketching and this spray can did not help. It was a little slow to respond to movement and even with the slowest flow and the smallest size it tended to fill too quickly. I am judging this against very high and expensive standards but for exacting use this tool is not quite up to scratch. The pencil tool works well and I got used to double-clicking to zoom in quickly.

### **Graduated fills.**

The graduated fills available via the paint bucket were easy to use and the 'Vague' setting worked very well over large areas providing excellent dithering and a smooth transition from the foreground colour to the selected colour. The graduated centre fill was useful for backgrounds. The rendered fill, using a highlighted spot, should be called the 'Henry Ford' fill — I could only get it to work in black with the highlighted spot in my selected colour. My preference for graduated fills is not met by MacCheese nor by PixelPaint as these apply graduated fills from the darkest colour to the lightest from edge to edge of the object to be filled with the direction of the graduated fill determined by the direction of the drag line (figure 1).



figure 1

I prefer the way Studio 8 and 32 use the drag line for the direction of the graduated fill but also allow

you to set the highlight point at the end of the drag line - filling to that point and graduating away from it. (figure 2).



figure 2

MacCheese is not as smooth in operation as its more expensive competitors and does not include special drawing effects like Pixel Paint. On the LC, even with the Software FPU emulators, it is particularly jerky unless you move very slowly. I expect Delta Tao will be working on that since LC users will be very important to them in the long term. 8-bit (256 colours) working is reasonable on the LC although still not as smooth as I would like.

Overall, Color MacCheese provides the basic colour drawing tools plus 32 bit colour or dithering, depending on the capabilities of your machine, anti-aliasing, variable translucency and rendering on small objects. It is easy to learn and to use. It works best on faster machines but is manageable on the LC. It does all this at an amazing price. If you feel you need a colour paint program then it has a great deal to recommend it. Professional paint users will still need Pixel Paint Professional or Studio 32 but this is an excellent piece of software at an affordable price for the casual user.

info

Product : Color MacCheese  
Publisher : Delta Tao Software  
Available from :  
MacEurope  
0603 741222

Price : approx. £ 70 + VAT

Value : ★★  
Performance : ★★  
Documentation : ★★



# Faces

## A review of Faces, a game from Spectrum Holobyte by Peter Kemp.

Faces is the third game from Spectrum Holobyte and Alexey Pajitnov. Like Tetris (and to a lesser extent Welltris) the basic idea is simple, but the seamless execution and little twists in the way it has been implemented, combine to make an excellent game. Coming on three 800K disks, the game (which runs happily under MultiFinder) is designed for both monochrome, including the Classic, and colour Macs, including the LC. The colour version needs a little under 4Mb of disk space but the mono version only takes 697Kb, including the 303Kb of sound files.

The purpose of the game is to assemble faces from pairs of random segments that drop from the top of the screen into five columns. Successfully making a chin, lips, nose, eyes and forehead fall on top of each other removes the completed head from the screen and increases your score. There are sixty scrambled heads in the game. Although it isn't necessary to combine Gallileo's chin with Mozart's lips, your score will be that much

higher if you do create a perfect face, containing the five segments of a single personality.

Controlling the pieces as they fall is simple and effective. Apart from moving them right and left, there are only three other controls: to swap the position of the falling pieces, accelerate their rate of descent and "cycle through" the various possibilities. If you're quick witted enough, this last control allows you to stop Margaret Thatcher's forehead from landing on top of Mikhail Gorbachov's eyes - a quick press or two of the "8" key and her bouffant hairstyle changes into his bald pate!

Of course no game would be worth playing without a few challenges. Any segment landing out of proper sequence, such as a nose falling onto a chin, will turn to stone. As the columns of stone rise ever higher towards the top of the screen, the less time you have to do with the next falling piece. The only way to get rid of these stone columns is to complete a face; as this is removed, so is the junk beneath it. Since segments come in pairs,

what may be right for one column may muck up another. Instant decision making is the order of the day. As you might expect the further you get into the game, the faster the pieces fall.

The game is physically unprotected but you have to answer a question from the rule book every time the game is booted which is a minor irritation. The instructions are very comprehensive, including playing by modem, and even cover how to design and include your own heads in the game.

Good solid fun. It's quite different from anything else you've played and can confidently be recommended.

Note: Colour adds a whole new dimension to FACES. The colour is bright and cheerful and makes the game much more interesting to play. Perfect faces become a lot easier to create due to their coloured backgrounds. Two friends who saw the game both agreed it had nice graphics and sound but the game didn't do much for them, and admittedly that is what I thought when I first saw it. However it is frighteningly addictive and it has been difficult to stop playing long enough to write this. The game IS DIFFICULT when you first start playing. However, once you get competent enough to pass the first couple of levels it is much more varied thus less boring. The programmers have paid meticulous attention to detail. The wonderful sound track, the nice background scenes, the faces themselves, even the high score board all make the game a pleasure to see let alone play.




If you're under 7 don't buy FACES if you're 8-101 this game is a must.



info

Product : Faces  
Publisher : Spectrum Holobyte  
Available from :  
MacLine  
Tel: 081 - 643 4626

Price : £24.00

Value :   
Performance :   
Documentation : 

# Friendly Solutions at Celtip Computers

## AppleCentre<sup>SM</sup> Kidderminster



- DESKTOP PUBLISHING
- DTP PRESENTATIONS
- DATABASES
- COMPUTER AIDED DESIGN
- COMMS & NETWORKING
- FINANCIAL SYSTEMS
- MULTI MEDIA
- EDUCATIONAL
- TRAINING
- AGFA PREMIER DEALER

Celtip Computers have been Apple<sup>TM</sup> dealers for almost 12 years, and in that time have gained extensive specialist knowledge of Apple<sup>TM</sup> computers. As operators of AppleCentre Kidderminster we are among the foremost computer and software suppliers in the Midlands, with a client base covering the UK. We offer service and support for the full range of Macintosh<sup>TM</sup> computers.

**Macintosh Personal Computers Start at £575  
and Apple Printers Start at £295**

**The new low-cost Macintosh LC when equipped with an Apple IIe<sup>TM</sup> Card  
will allow you to run virtually all existing Apple IIe software.**

*Contact Sales today for further information*

**Celtip Computers :  
AppleCentre Kidderminster**

Lower Mill Street, Kidderminster, Worcs, DY10 2JG

**Tel: 0562 822222, Fax: 0562 67202**



Authorised Apple<sup>TM</sup> Dealer  
Apple Authorised Training Centre  
Apple Authorised Education Dealer

---

### **AUTHORISED DEALERS FOR:**

**Apple, Agfa, Radius, Aldus, Claris, Microsoft, Adobe, Quark, ACl, Mac School, Letraset, Tektronix, QueFax, GCC, Access Accounts, Roland, Rodime, Bitstream**

---

AppleCentre is a service mark of Apple Computer, Inc.

# Voyager™ The Interactive Desktop Planetarium

A review by John Arnold of version 1.2 of this program from Carina Software.

A number of astronomical programs are available for the Macintosh. This particular one is called Voyager and is produced by Carina Software. It took three years to write, and the language used to produce it was MacForth Plus. It is supplied on

one 800K disk, and with a 152 page manual. The program is not copy protected and runs on the MacPlus and later machines, and it requires System 4.1 or later versions, it is compatible with MultiFinder, with large monitors and according to the manual most DA's and INITs, although the ones it is not compatible with are not specified, other than to indicate they could possibly be 'screen savers', 'print spoolers' or some of the older DA's.

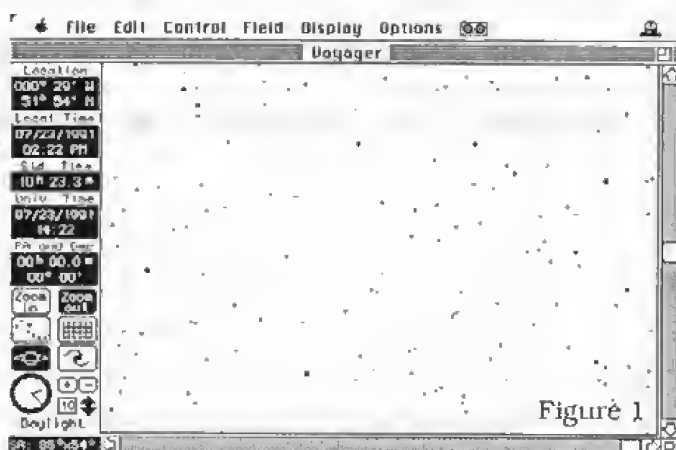


Figure 1

The manual has two pages dealing with possible problems and how to get around them. So far I have found no incompatibilities with the DAs and INITs in my system.

The manual falls into the following sections:- Getting started, Introduction, Voyager Tour, Reference Section, Technical Section and Appendices.

**Getting started:-** General information, installation on a hard disk, memory requirements (at least 1 Mb necessary, or 2 Mb when using MultiFinder) etc.

**Introduction:-** This states some basic astronomical concepts necessary to be able to use the

Voyager program. In this part of the manual are short but adequate explanations of the coordinate systems used, the Celestial sphere using Right Ascension (RA) in hours, minutes and seconds, and declination (Dec.) in degrees. The ecliptic coordinate system and the Altazimuth system are also

mentioned and explained.

Following this is a description of the Voyager screen. The initial screen is shown after setting the display to white sky (as the LaserWriter is pretty awful with solid blacks) in fig. 1 the sky chart to the right and with it's control panel (called the sky panel) to the left hand side. The sky panel displays the current settings for the program with some screen buttons in the lower half of the panel, which gives control of some of the object types displayed. At the top of the panel are the longitude and latitude of the observer's position. These will be the first things the user will want to change and this is done using 'set location'/ 'World Map' from the Control menu. Using an Ordnance Survey map your own particular longitude and latitude can be determined and set in. This information can then be saved with the other current values using 'Save Settings' from the File menu. From the top of the Sky Panel downwards are:- the observer's location, The current time given as Local Mean Time, Sidereal Time and Universal Time, the time is changeable from 'Set Time' in the Control menu, the System clock time can be used if required. The coordinates of the chart centre appear next, followed by the Zoom buttons. There are four on/off toggle buttons used to show/hide Constellations, Grid, Planets, and Deep Sky objects. A real time clock is shown with increment/decrement buttons, and on the bottom row the type of Sky View with the Field of View. Six types of Sky View can be chosen from the Control menu see fig 2. These range from the view you would expect to see in a star atlas, to a local horizon view, and all the way through to a Galactic Plane view.

The scroll bars are used to change the coordinates of the Sky View centre. Clicking in a scroll bar brings up two additional indicators, one to show the declination or altitude, and the other to show the Right ascension or azimuth. Figure 3 shows the screen after being set to the correct location and time and showing the Local Horizon Sky View, with stars to magnitude 8, and with planets visible in the window (the large dot

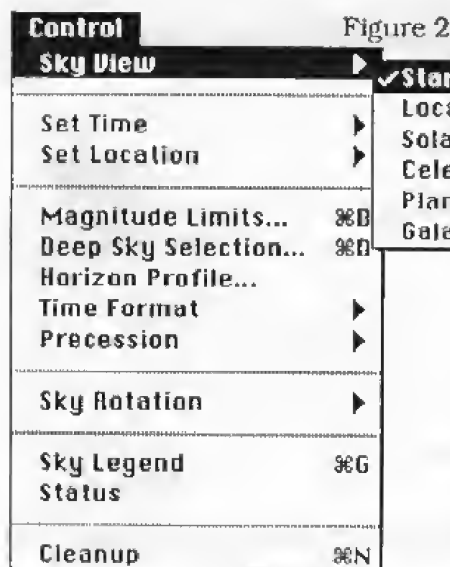


Figure 2



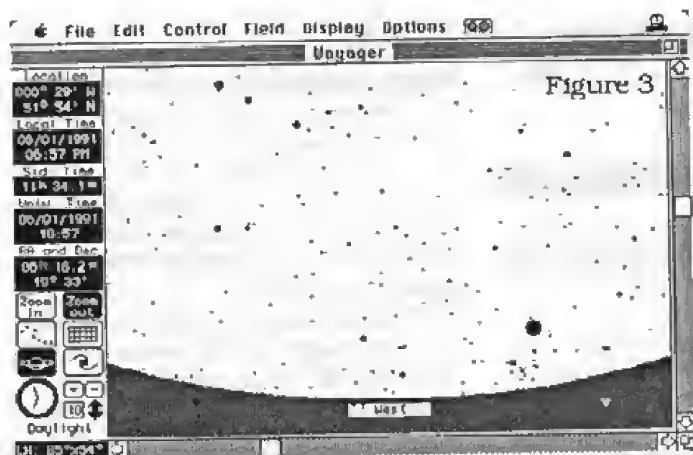


Figure 3

is the sun!).

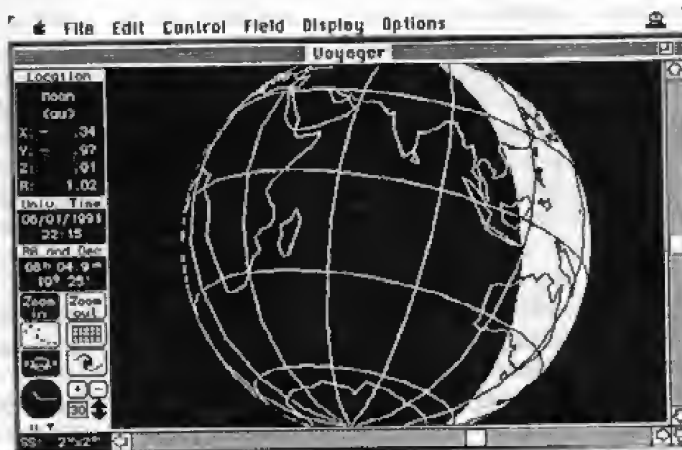
**Voyager Tour:-** This section of the manual as the title suggests leads the user through most of the features Voyager provides. The Voyager database contains 14,000 objects, and the information for each of these objects can be shown on the screen by clicking on an object, an information box then appears for that object, clicking inside the box will remove it. The database includes some 3000 deep sky objects, represented by a variety of symbols, which of the types will be displayed when the Deep Sky button is clicked on is selectable from the Control menu.

Constellation outlines can be shown, with or without their abbreviated names. I must admit I hadn't realised there are 88 of them. With the constellations displayed I found that some of the names even though abbreviated were not that legible. It is possible to centre the display on a constellation, a planet or a particularly bright star. From the Control menu it is possible to set the magnitude limit for displaying an object, stars range in magnitude from negative to +8, and deep sky objects from 8 to 16.

Some of the other features in this section are Setting the observing time:- the date and time of viewing can be set to any date and/or time in the past or into the future. Sky Rotation:- the sky can be manually rotated by using the buttons in the sky panel, or can be made automatic from the Control menu,

Control menu, a window appears in which a profile can be drawn, this will then be incorporated as the new horizon in the appropriate views.

One of the things Voyager allows



you to do is to observe from any planet in the solar system. As an example fig 5 shows the earth (after zooming in) as seen from the moon, and the earth of course rotates as the view is updated manually. The scene shown is as that which would be visible when viewed from the centre of the selected planet or moon, so there is no horizon.

Another feature of Voyager is the ability to track the planets over a period of time. 'Track Planets' from the Options menu adds another control panel to the top of the window. This enables the user to select which planets are to be tracked, to select the time update increment, to move forward or backward in time, and enables the user to choose whether or not to show a trail as the chosen planets move with time.

Included on the Voyager disk are examples showing the orbital motions of some of the more prominent comets and asteroids as

with Start Sky selected the sky chart will update every few minutes duplicating the earth's rotation. The horizon as shown in the local horizon view can be changed to correspond to your actual situation by choosing Horizon profile from the

viewed from particular points within the solar system. All the settings can be saved to disk, so that particularly interesting events can be saved and reloaded. The startup file containing the initial settings for the program can be saved, so that the program launches itself with the user's location etc. already in place.

**Reference Section:-** This is the main section of the manual and deals in some 80 pages with the each of the menu choices in some detail.

**Technical Section:-** Trouble shooting and accuracy of the program, for example, within 500 years of the present time, the planet positions are accurate to 1 to 2 arc minutes of angle.

The details for the database are also given in this section, and it is possible to add items, presumably like new comets when the data becomes available. I have in the past spent several unrewarding hours looking for comets, with very little success. I have the feeling that had this program been available to me, I could have entered the necessary data, and looked in the correct area

of the sky, which would at least have given me a good start!

There are also five informative appendices.

**Conclusions:-** The program was designed as a general purpose astronomy package for the astronomical enthusiast, student etc. I found Voyager extremely interesting to use. (it enables a lot more to be done than I have mentioned in the body of the review) There were no problems under MultiFinder using System 6.07, more importantly it is also all right running on a Mac II under System 7.

I am sure that anyone having an interest in Astronomy will find it a fascinating program as I did. I can recommend the Voyager program.

Publisher: Carina Software

Available from: MacLine

081-643 4626

Price: £95 + VAT + P&P.

# Computer Assisted Learning for Students of Industrial Design

## Part 1 The case for computer aided learning by David Durling

### Introduction

This article is taken from a report of an investigation being undertaken into the possible benefits of computer aided learning for students of industrial design. The programme of work began in April 1990, and is part of a part-time research degree study being undertaken with the Design Discipline, Faculty of Technology, The Open University, Milton Keynes, UK.

Part 1 of this article will deal with some of the broader issues of computer aided learning, while Part 2 will describe development of the HyperCard stacks and discuss the results of user testing.

### Overview

A proposal is put forward that CAL will be useful for peripheral studies in design courses, particularly in view of the difficulty of obtaining high quality tuition in some supporting subjects such as professional practice studies, and the decreasing amount of available time by full-time tutors. It is therefore likely that CAL will be seen as a cost effective means of delivering acceptable tuition.

Following an initial literature search and a brief study of the history of CAL in its various forms, a practical project was undertaken to design and develop a small machine tutorial: this acted as a vehicle for testing ideas of content and delivery. All of the development work was carried out using HyperCard 1.2.2 and recently HyperCard 2.0.

This package, CV Writer, is a computer tutorial which teaches good practice in the writing of comprehensive curriculum vitae. This was conceived as one module of a set of machine tutorials on professional practice for designers. A further module on report writing was later added in order to try out further developmental ideas.

Several valuable lessons were learned about the structuring of information and the limitations of screen-based delivery of teaching material.

Tests were conducted with design undergraduates on a polytechnic 3D design course, with some students using the CAL method, whilst others were taught conventionally by lecture/seminar techniques. A comparison of results between the two methods showed that there was little discernible difference between student output in CV and report writing following machine tutoring, in comparison with human tutoring.

It was concluded that CAL might have a role, and further investigation will be undertaken to assess further areas of study closer to the core design disciplines which might benefit from machine tutoring.

### Genesis of project

The term 'industrial design' means all forms of design for industry including product, furniture, ceramics etc. and including related design in interiors, graphics, exhibitions and so on, both at degree and OND/HND levels.

The author's experience of teaching on various design degree courses had shown him that new pressures were being brought to bear upon these courses. For example there has been a dramatic rise in student numbers in some institutions without a commensurate rise in funding, thus adding to a general decline in resources which has been ongoing for some years.

### Hypothesis

Under these pressures, it seems reasonable to suppose that more efficient methods of teaching will be sought, probably in both time and cost. Design courses have traditionally relied upon 1:1 tuition in the main studies, and it is unlikely

that this burden can be sustained at traditional levels. One way in which this might be tackled is to look more towards student centred learning backed up by the use of preplanned packages of learning materials. This could be particularly relevant in the peripheral subjects, thus releasing tutor time for main study subjects.

Self-learning packages for design students are already widely used, delivery generally being by:

- Reading list together with a summary project or essay.
  - Collection of slides with notes, perhaps explaining a designer's work.
  - Set of notes with graphical material, for example demonstrating perspective.
  - Video tape showing a design case study or manufacturing process.
- With the growth of interactive multimedia, it seems likely that various forms of computer assisted learning (CAL) could deliver student centred learning experiences based upon text, graphics, sound, animation and video, and provide a richer experience than could be expected of a traditional delivery method. CAL could, in future, play a significant part in the delivery of high quality information and teaching.

### A very short history of CAL Early systems

In education, computer assisted learning, sometimes known as computer based teaching (CBT), has a history going back into the late 1950s. The promise of this technology has always been that, by interaction with a computer, a student would be able to receive instruction or acquire knowledge and understanding, either as a supplement to traditional teaching or by completely replacing the traditional teaching methods. These have often been little more than simple linear or branching programmes, offering highly prescribed courses with little opportunity for flexibility of learning. Early programmes were run on mainframe computers and demanded considerable capital investment, both in hardware and in human resources used to develop the teaching materials.

Typical of these early methods were large scale applications such as PLATO (Alpert, 1975) running on powerful time sharing systems

with access via remote terminals linked by telephone lines to the host computer. Software support was centralised. The major disadvantage of this kind of scheme was that, apart from the considerable costs of implementation, running expenses were necessarily high in communications costs. Additionally, the centralised nature of software development led to little feedback from users and consequent lack of improvement.

Over the past decade or so, the various forms of CAL or CBT have moved from mainframe computers to desktop micros. This shift to stand-alone microcomputers running software from local disk drives has produced fundamental changes both in cost and in maintainability, but perhaps most importantly in human-computer interaction. Furthermore, it has become possible to have a graphics rich environment at a reasonable cost.

Early CAL programmes of the simple branching type were inherently very inflexible, offering the student a prescribed linear path through the programme together with choices of answers at the end of each teaching unit. These have been largely discredited or superseded by more powerful methods, although various drill programmes are still in use for delivery of specific knowledge mainly in the areas of mathematics (Palmer and Oldehoeft, 1975) and military training where learning by rote is still accepted and is perhaps efficient.

#### **Rule based systems**

In order to overcome the shortcomings of simple branching programmes, systems were developed which employed a knowledge domain linked with a set of rules for using or interpreting the intrinsic knowledge. Due to the ways in which these systems filter out irrelevant information and make decisions based upon sometimes very complex rules, an area of computer science has grown up known as 'artificial intelligence' (Feigenbaum & McCorduck, 1983).

Apart from chess playing programmes, perhaps the first rule based system to come to prominence was ELIZA (Weizenbaum, 1976). A human subject would interact with a remote computer by a keyboard

and printer. The purpose of the programme was to have a dialogue with the human user by a question and answer session. For example, the computer might ask the subject "How's your family?": if the reply was "Fine, but the children have colds" the computer might lead into a modified dialogue by saying "Tell me about your children". In this way a conversation is held. It is said that human subjects were often unable to tell the difference between 'talking' to a computer in this way or talking to another human, indeed some preferred it to a human counterpart (Hofstadter, 1979).

More elaborate rule based systems have been developed, particularly in areas where human expertise can be replaced or assisted. These are generally known as 'expert systems' and many have been developed for commercial uses in prospecting, diagnosis, problem solving etc. using probabilistic inference engines. MYCIN (Shortliffe 1976) is a well known example of this technique, being an expert system which is able to construct diagnoses of complex blood disorders based on dialogue with a medical expert via a keyboard. Systems of this kind enhance the human user's ability to navigate a path through what can be a very difficult decision making process. The decision tree for the resultant prognosis can be readily examined by the human expert, and where differing prognoses are provided based on available information, these are given a probabilistic weighting in order to assist the human decision making.

#### **Intelligent tutoring systems**

The development of artificial intelligence techniques has led to the development of CAL programmes which more closely model normal student/teacher dialogues and which can adapt to the requirements of individual students. These are known as Intelligent Tutoring Systems (ITS).

In ITSs, in order to offer interaction more akin to a human tutor, various artificial intelligence techniques have been employed which typically use a constantly updated internal representation of the learner's abilities, and are consequently able to adapt to the learner's level of understanding of the subject, thereby shaping the

difficulty of a lesson to the individual's requirements. These programmes are characterised by an ability to adapt coupled with an intuitive interface designed to be human-like in its response, including the use of English parsers where appropriate.

CAL evolves toward ITSs by passing three tests of intelligence. First, the subject matter, or domain, must be "known" to the computer system well enough for this embedded expert to draw inferences or solve problems in the domain. Second, the system must be able to deduce a learner's approximation of that knowledge. Third, the tutorial strategy or pedagogy must be intelligent in that the "instructor in the box" can implement strategies to reduce the difference between expert and student performance. These are the knowledge foundations - expert knowledge, student diagnostic knowledge, and the instructional or curricular knowledge (Burns & Capps, 1988).

#### **Simulation**

Another form of CAL is simulation, which has been developed to a high degree, mainly for military use. However, simulators are now widely used in the training of civil airline pilots and of other personnel where the processes are especially hazardous and would preclude live training.

Advanced simulators have the ability to feed all the visual and audile senses and make the subject feel that they are actually in the space being described by the computer. Hence in a flight simulator action at the controls has consequent feedback to the human subject by deck pitch and roll, vibration, noise, and visual changes to the scenery through the cockpit screen.

A further extension of this work is in 'virtual reality'. One technique is for the human subject to wear goggles consisting of a small pair of TV monitors which show a computer-modelled three dimensional space in which the human subject is centred. A move of the head causes the computer to pan around this virtual space and with sufficiently large models it is possible to 'walk' through them. One refinement to this technique is to employ the use of a 'data glove', a glove having sensors in the finger portions



which provide the computer with positional information. A further refinement is the wearing of a body suit which returns positional information, thus it is possible to walk up to a virtual chair, pick it up and reposition it elsewhere in the room.

Some of the latest work in virtual reality is being conducted by NASA and promises a total environment for simulated space walks both for practice purposes and for remote control of robots which might be used in space or for other particularly hazardous tasks. It also seems likely that leisure uses for this technology will advance quickly - who needs drugs when you can get your fantasy trip from the computer.

### Discovery learning

In parallel with these developments, certain kinds of programming language have been shown to be beneficial in developing organisational and problem solving skills, and can therefore be seen as passive tutors which enable discovery learning. Perhaps the most well known example is the LOGO programming language (Papert, 1981) widely used in schools, and which has been shown to be especially powerful in providing models of abstract ideas. For example, simple geometry can be explored by young children by the use of a 'turtle', a screen based positional icon which can be directed to move forward in incremental steps, to turn by given angles, and to draw a line while executing these instructions (O'Shea & Self, 1983). If required, movement can also be echoed by a mechanical turtle which draws onto a sheet of paper.

One extension to this thinking is the Lego Logo environment (Papert, 1986) which is a good example of creating physical tools and activities in order to produce an effective instructional environment consisting of construction blocks, motors, switches and sensors. Some of the construction blocks are computer monitored and controlled.

Other kinds of object oriented programming environments such as SmallTalk (Kay and Goldberg, 1977) are also available or under development.

### Microworlds

Learning can be greatly enhanced by a proper facilitating environment. One way that CAL can be used to

good effect is by producing a microworld, a computer mediated environment in which the student can undertake discovery learning by having problems posed, trying to solve those problems and in the process, getting a feel for the underlying principles or laws, or becoming aware of hidden processes.

Instructional environments of this kind have ranged from the Historian's Microworld (Copeland, 1984) which set historical problems for teams of students, through Steamer (Hollan, Hutchins & Weitzman, 1984) which provided a graphical display and control of a simulated steam plant, to BUGGY (Brown & Burton, 1978) a arithmetic game which generates students' error patterns: the object of the game is to discover the computer generated student's bug by giving it problems to solve. This forces the players to examine their own algorithms, which they might otherwise have been following by rote, and to check their own answers against the buggy answers at each stage to see if they agree: if not, they must work out alternative strategies. The game introduces the idea of debugging, and gives the students a concrete example of thinking about their own thinking.

Physics is another area where microworlds have been used to some effect. The Envisioning Machine (Roschelle, 1986) facilitates students' reconceptualisation of physics by demonstrating a Newtonian world by, for example, the trajectory described by the throwing of a ball: the student is able to reset velocity and acceleration vectors and watch the results. However, the physical parameters of this microworld can also be altered, for instance by changing gravity or other physical laws and thereby observing different potential worlds than our own.

### Hypertext

Although its history goes back some years, Hypertext (Bush, 1945) has come to prominence only during the past few years, particularly with the advent of powerful microcomputer based applications such as Guide™ in 1986 (Baun, 1990), HyperCard™ in 1988, and Authorware™.

Hypertext systems comprise large amounts of text and related graphic data with associative links allowing the user to make linear

and non linear steps in their navigation through the knowledge domain. The links between data can be controlled to a lesser or greater extent and therefore through designing the structure of both the embedded knowledge and the nature of access to that knowledge, it is possible to provide some degree of guided learning whilst leaving the student to discover other elements of the package. One advantage is that the users, rather than seeing themselves locked into a rigidly designed navigation through the domain by simple branching, may perceive themselves to be more in control, and might find such packages to be suitable vehicles for tutored learning, discovery learning or for knowledge acquisition by simply dipping in when required.

This has led to the interesting notion that the locus of control could be handed back to the learner, who by navigating through the domain will make judgments about content and paths and thus select both the quantity and quality of their learning experience based upon their understanding and needs (McAleese 1990).

### Interactive multimedia

Many of the elements of CAL discussed above have the potential for coming together in interactive multimedia. Course or session building methods are now becoming available offering a richness of graphics, text, sound and animation experiences available through the latest hypermedia or interactive learning software. These can incorporate digitised sound, and videotape, and have the ability to offer a full suite of editing facilities on a microcomputer. The main commercial thrust of these methods is for presentation purposes and in-house company training, although the potential for CAL in education would seem obvious as the hardware costs continue to drop over time.

The use of real time simulation and decision support in a teaching package has been well demonstrated by a CAL multimedia programme developed in the USA for the training of medical staff in combat situations. By the use of video and sound the trainee is exposed to situations of coping with recently injured combat casualties in field conditions, and has to correctly

diagnose injuries and actions to be taken. The computer controls the session in real time, and supplies information on the patient and demonstrates the effects of treatment, good or bad.

Another aspect of multimedia is the growth of CD-ROM, read-only compact disks designed for digital data storage and used from a special computer drive (Microsoft, 1990). With some 640MB on tap for a media cost of about fifty pence, CD-ROM could become the standard method for holding the considerable quantities of data required by large Hypertext and mixed media systems including sound and, when suitable data compression becomes available, digital video. Already available commercially are CD-ROMs such as the Guinness Book of Records, the Whole Earth Catalog and several disks which teach musicology: hence a symphony can be played in full stereo sound through the HiFi whilst watching the score being presented on screen. Lyrics can be examined in the original and in translation, and chunks of music, instruments or motifs can be extracted for closer scrutiny. This can be done in real time or controlled.

Theology undergraduates who study bibles in two languages together with three main reference works can now have these supplied on CD-ROM with a front end running under Guide. Not only is it cheaper, but powerful search techniques are available and, for example, a particular passage from

a bible can be selected in one window, while in another window either an alternative translation is shown or the relevant parts of one of the reference works can be examined. This is a considerable step forward from paper based systems.

At the moment the main problem areas with multimedia seems to be the lack of well defined standards for content and presentation, a preponderance of computer experts or other technologists programming with little specific subject knowledge, lack of hardware standards, and few cognitive models to assist with designing adequate structures for navigation through the domain.

**David Durling** FCSD MDesRCA BA(Hons) FRSA; Open University; June 1991; shortened version 1.1 © Edge Limited 1991

### Main references

- Alpert, D., The PLATO IV system in use: a progress report, Computers in Education, Lecarne, O., & Lewis, R. (eds), 1975  
 Baun, N., Guide (Hypertext program), Library Software Review (USA) vol. 9, no. 1, pp. 45-50, Jan-Feb 1990  
 Brown, J.S., & Burton, R.B., Diagnostic models for procedural bugs in basic mathematical skills Cognitive Science, 2, 155-192, 1978  
 Burns, H.L., & Capps, C.G., Foundations of intelligent tutoring systems: an introduction, Foundations of intelligent tutoring systems, Polson, M.C., & Richardson, J.J. (eds), 1988  
 Bush, Vannevar, As we may think,

Atlantic Monthly, July 1945

- Copeland, W.D., Creating a historian's microworld, Classroom Computer Learning, 5, 48-53, 1984  
 Feigenbaum, E.A., & McCorduck, P., The Fifth Generation, PanBooks, 1983  
 Hofstadter, DR., Godel, Escher, Bach: An eternal golden braid, 1979  
 Hollan, JH, Hutchins, EL, and Weitzman, L., Steamer: An interactive inspectable simulation-based training system, AI Magazine, 5, 15-27, 1984  
 Kay, A & Goldberg, A., Personal Dynamic Media, Computer, 10, 3, 31-41 (3), 1977

McAleese, R., Locus of control - does hypertext make ITS obsolete?, Interactive Learning '90 Conference, 1990

Microsoft, CD-ROM: the new papyrus, 1990

O'Shea, t & Self, J., Learning and teaching with computers: artificial intelligence in education, 1983

Palmer, BG & Oldehoeft, AE., The design of an instructional system based on problem-generators, International Journal of Man-Machine Studies, 7, 249-71

Papert, S., Mindstorms: children, computers and powerful ideas, 1981

Papert, S., Rethinking mathematics learnability in a computer culture, The Karl de Leeuw Memorial Lecture, Stanford, 2 May 1986

Roschelle, J., The envisioning machine: facilitating students' reconceptualisation of physics, ISL working paper, 1986

Shortliffe, EH., Computer-based medical consultations: MYCIN, 1976

Weizenbaum, J., Computer power and human reason, 1976

Members' Small Adverts are FREE. Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

## Members' Small Ads

Members' Small Adverts are FREE. We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

**WARNING: The sale of copied or pirated software is illegal. Please ensure that items offered for sale are new or are re-registered.**

### FOR SALE

- 1) Apple //e (Enhanced)
- 2) 128k 80 column card
- 3) 12" High Res Amdek Orange Screen Monitor
- 4) 2 off Apple 5.25" full height disk drives
- 5) Disk Drive controller card
- 6) Parallel printer interface card
- 7) TimeOut Sidespread (Original + Manual)
- 8) Usual Apple manuals (5 off) and software

£300 O.N.O. (Delivery extra)

\*Phone Ken (evenings or weekends) .....

### FOR SALE

Apple //e complete with dual disk drive, mono screen, parallel printer cable, Wordstar 4. .... Reasonable offers invited.

\*Phone Y. Buckland (evenings/weekends) .....

### FOR SALE

- Apple IIGS software:  
 Grand Prix Circuit (disk, manual and box) ..... £15  
 Apple Works 2.0 (just 3.5" disks) ..... £20  
 Kings Quest IV (disks, manual and box) ..... £15  
 Prices include postage. Offers considered.

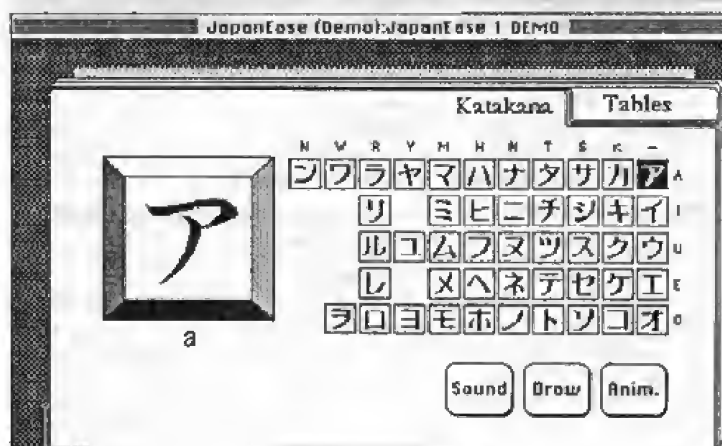
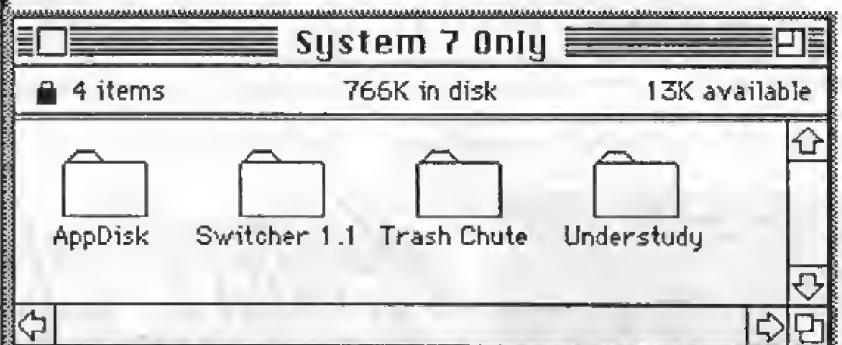
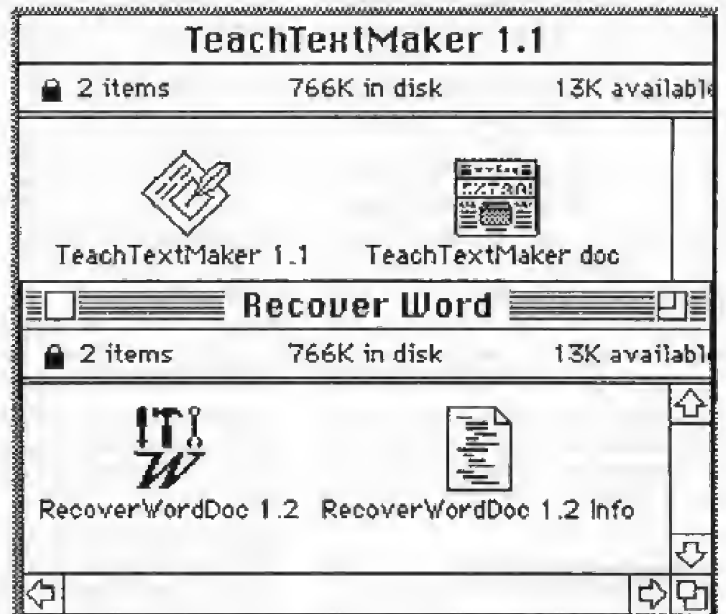
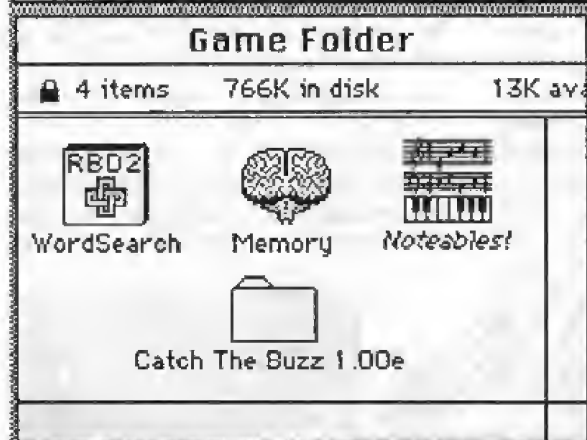
\*Phone Jonathan .....

### FOR SALE

Technical manuals for 3.5" disk drives. Including connector details, internal links, DIP switch settings, interface circuits etc., for Schugart Teac Nec Chinnon Mitsubishi Citizen and Sony drives. Each manual contains a wealth of information for enthusiastic Apple owners who wish to attach additional disk drives to their computers. .... Only £5.00 each

\*Phone Edd (evenings) .....

# AppleXtras Mac 10

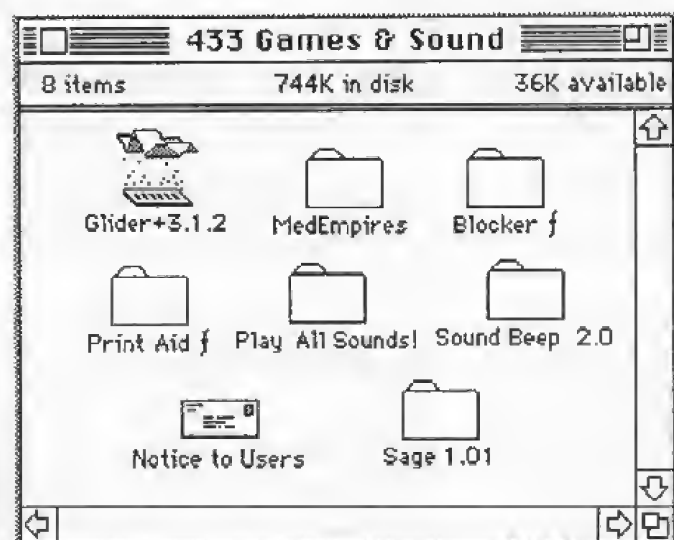
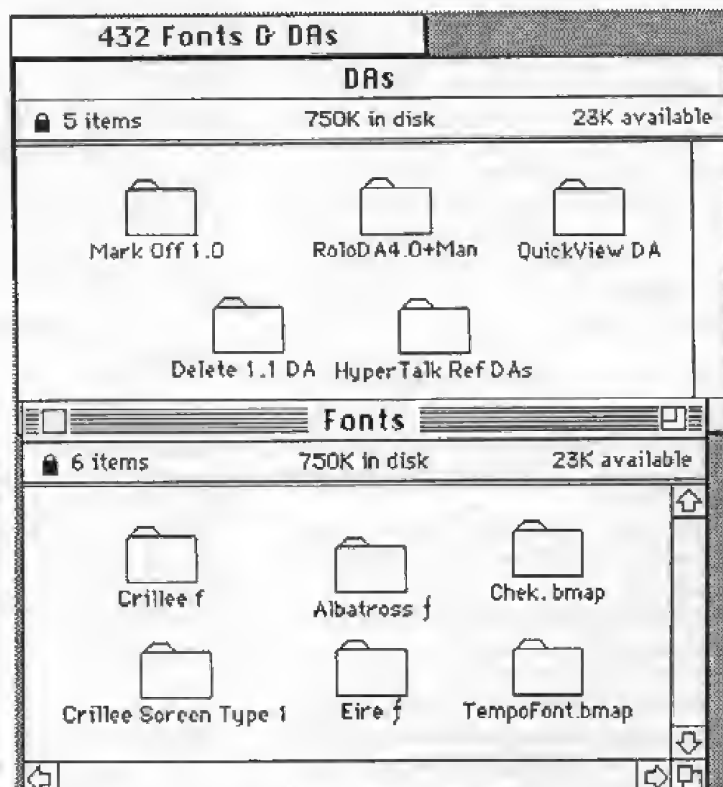
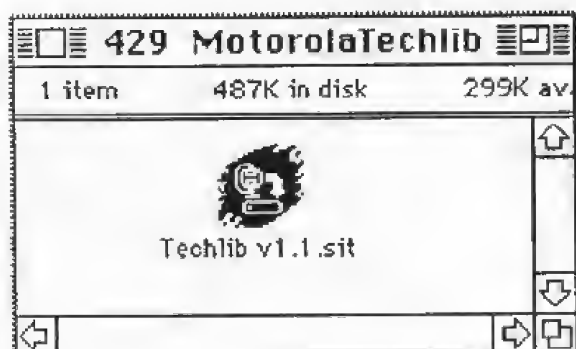
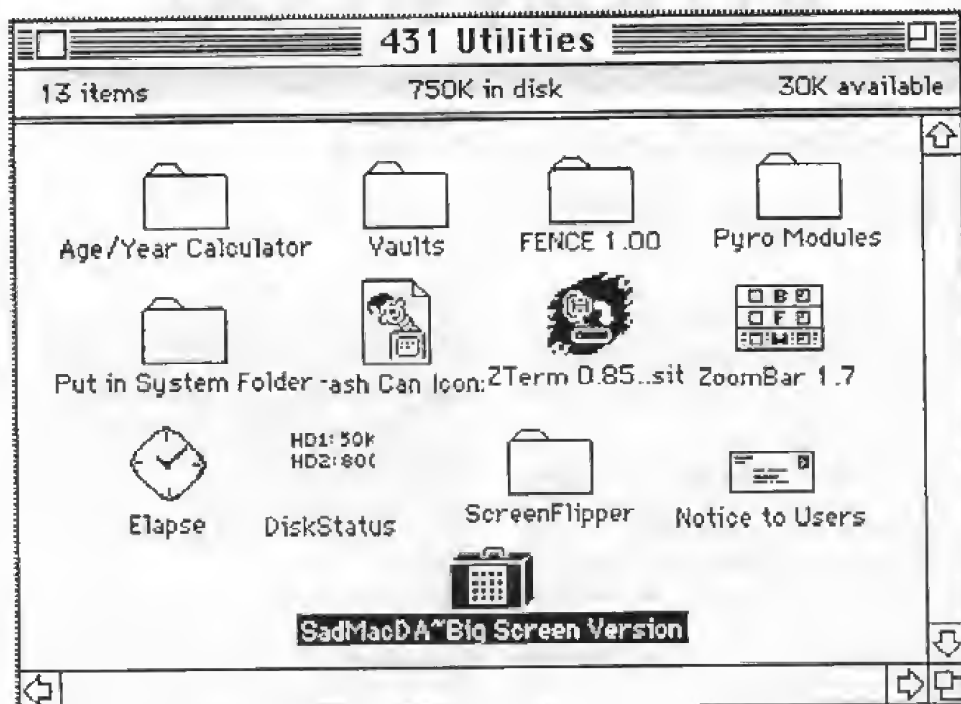
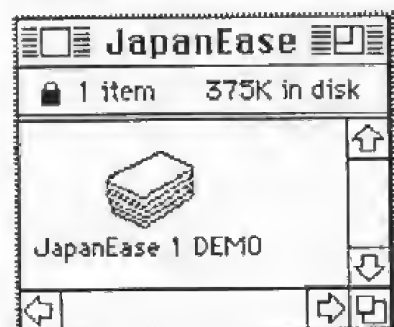
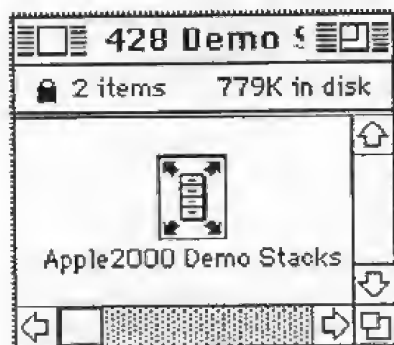


## Mac Library

This is a screen from the JapanEase Demo which is now available as Disk 430. The JapanEase program takes full advantage of the Macintosh's graphics and sound capabilities.



# Mac Library



MacLibrary disks are available through Shop2000:  
 Single disk ..... £3.76  
 10 disks ..... £32.90  
 20 disks ..... £63.45  
 AppleXtras annual subscription (six disks) .£20.00  
 (All prices include UK postage and VAT)

# Apple Computers in Hollywood

An interview with Daniel Paul  
by Mary Anne Mather

*(Reproduced from Quick Connect — the user group newsletter produced by Apple Computer Inc., in U.S.A.)*

Have you ever wondered how Apple computers get to "star" in TV programs or Hollywood movies? We recently had a chance to speak to Daniel Paul, Apple Computer's liaison with the entertainment industry, to learn how Apple computers are being used in Hollywood, both on-screen and behind the camera.

**Quick Connect:** Daniel, how are Apple computers selected to be part of a film or TV program?

**Daniel Paul:** Since I'm based in Los Angeles, I'm able to stay in touch with folks who are making films and TV series, and I keep up-to-date with the industry trade journals. If I hear of a script where I think Apple products could be showcased, I'll contact the producers. We'll then arrange a loan of Apple equipment for use on the set for the duration of the project. We also often get requests from the behind-the-scenes staff—people like set directors, audio engineers, or the camera crew—who will approach Apple directly. They often have worked with Apple computers in other creative projects, and as enthusiasts, they want to see our products in their next production.

**QC:** Are there any "rules" about how Apple products are portrayed on screen?

**DP:** The goal of having Apple products seen is to show them in an entertaining but educational way. We shy away from having our computers used on screen by offensive characters or teenage hacker-types doing harmful things like destroying credit ratings or changing grades in the school computer. Scenes showing someone approaching a computer, hitting a key, and having it blow up, don't project a good image for the

industry. We understand that even though there are millions of enthusiastic Apple computer users, there is a large population that is still computer-phobic. We want to encourage people to think about Apple and their computing experience in a positive way, and therefore we are very careful about how our products are portrayed.

The only other "rule" is that our equipment is on loan, and must be returned when the project is completed, so we can let someone else borrow it. Many crews really hate to give up the systems, particularly if this was their first experience with an Apple computer. They've used them every day for several months, and like all of us, they can't imagine living without them. We direct them to sources where they can purchase a system, and we also tell them about User Groups in the area. Some have become quite active in User Group SIGs for film, animation, and other creative topics.

**QC:** Do most scripts use computers in realistic ways?

**DP:** Hollywood is where imagination runs free, so computers are used in both realistic and fantasy ways. Scriptwriters will often give computers magical abilities or absolutely no capabilities at all. Many times they will call and ask if they can actually do something in a script with a computer. Hollywood takes liberties with technology, but you end up believing it when it's on screen, which is the magic of it all.

Lately there have been some movies that have used Apple computers in pretty realistic ways. In *The Hard Way*, an action-adventure film with Michael J. Fox and James Woods, a Macintosh appears in several scenes. In one part, James Woods' character, who plays a cop, turns on his Macin-

tosh and logs onto an electronic network to search for information. We know that some viewers will understand what he's doing, but for many people, it will be their first experience seeing online communication—and a Macintosh at work. We also have placed Apple computers in other movie settings where computers are frequently seen in real life, such as the classroom scenes in *Kindergarten Cop*. In that movie, Arnold Schwarzenegger plays a kindergarten teacher, and it was appropriate to show Apple IIgs (II) computers, since they are often the choice of many classroom teachers. Macintosh computers have also been incorporated into TV shows such as *Twin Peaks*, where they were used for investigative work, and on *Northern Exposure*, a comedy about a young doctor in Alaska. Many people also know that the comedian Harry Anderson is a Macintosh enthusiast who has used Macintosh computers in the TV series *Night Court*, as well as his work with Disney on *The Nutty Professor*.

It's also important to present computers in the proper context. I always have to remind people that computers require power, and things like cables. Directors don't like to have power cords and keyboard cables cluttering up a desk on a set. But if you're trying to achieve realism, that's part of the trade-off.

**QC:** Apple computers have been used in very innovative and creative ways by artists working in a variety of media. How is this happening in the entertainment industry?

**DP:** Many people in the entertainment field are using Macintosh systems in very creative ways. For example, all the on-screen animated graphics for the televised Academy Awards show last spring were created on a Macintosh IIx. Formerly, a graphic designer would have used a very expensive system to create the images. It's exciting to see the industry discover that an Apple computer—the same machine that can write one-page memos or scripts—also can be used to create high-impact graphic images on screen.

Another example of the Macintosh at work is its role in programming the actions of the Teenage Mutant Ninja Turtles. Inside each Turtle costume is a live human and a computer processor. While the humans do the walking and talking, other gestures such as eyebrow movements and nostril flares

are controlled by a processor that was programmed with a Macintosh. In fact, the writers created their own programming language so they could carefully control how the Turtles are supposed to react in each scene.

I was surprised to learn how many administrative functions are not computerized in Hollywood. Many script writers are still using electric typewriters! The entertainment industry is bombarded constantly with talk about the future. But if you want to get people excited about technology, you've got to get them to understand the role of it today. So we show them how Apple computers can be productivity tools for day-to-day operations, such as rewriting scripts or balancing budgets. Since information and speedy communications are of prime importance in Hollywood, there has been particular interest in electronic mail.


Over the past two years, the perception of what the Macintosh can do has changed dramatically. Hollywood has

a better understanding of the capabilities, and the lower-priced Macintosh systems have brought the power of the Macintosh into the hands of many more people. A beginning script writer can use a Macintosh Classic system with a StyleWriter printer and have their output look just as classy as an experienced pro. And Macintosh animation programs let artists try out ideas without investing in millions of dollars of special equipment.

**QC:** Hollywood is known as a place where people dream about future possibilities. What about Apple's plans and its relationship with Hollywood?

**DP:** Apple is building awareness and creating relationships within the entertainment industry for long-term projects and prospects. As computers move toward being more interactive and dealing with content, the entertainment industry is going to hold a great deal of importance. Products like ABC News Interactive, which give users the ability to navigate through information and have selec-

tive viewing, are very powerful. Rather than reacting, you are interacting and controlling the information experience. Imagine a newscast where you could skip the baseball stories about the Yankees and go right to the box score for the Cubs. Or imagine giving this power to teachers and students, allowing them to utilize text books and other teaching tools better. Future capabilities will extend beyond linking the laserdisc and computer, into areas where the computer and television are no longer separate.

The entertainment industry is a creative testing ground for a lot of new ideas in the computer industry. Every day they create things that challenge us to reconsider where we may be heading. Remember the early folks who were using word processing programs to do page layout before desktop publishing became a reality? The entertainment industry is similar. Their creative use of Apple computers is going to take us places we haven't even considered yet. 

## SuperCard 1.6

### Press release from Aldus

Aldus Corporation have announced a System 7.0-savvy version of Aldus SuperCard, a multimedia authoring application for the Macintosh from the company's subsidiary Silicon Beach Software.

SuperCard 1.6 will support key components of System 7.0, including AppleEvents and Balloon Help. It will also provide several frequently requested features, such as the ability to convert HyperCard 2.0 stacks to SuperCard format.

"SuperCard is widely used to integrate multiple applications and create custom Finder environments, so our support for System 7.0 functionality is a natural extension for the product," said Stuart Henigson, strategic marketing manager, multimedia.


Customers use SuperCard to produce sophisticated multimedia presentations, front-ends to databases, and computer-based education and training applications. Moreover, SuperCard users can build integrated, stand-alone applications that include multiple windows of any type, full-colour graphics objects with scripts attached, and a wide variety of other standard Macintosh interface elements.

The 1.6 version of SuperCard will be able to take full advantage of System 7.0's most popular features, such as AppleEvents, Balloon Help, background operation, and TrueType fonts. It will be compatible with any bit-depth mode a monitor is set to (including 24-bit colour mode), will import HyperCard 2.x stacks directly, and will convert HyperTalk scripts to SuperTalk. There are also a number of SuperTalk enhancements and extensions, such as new

commands for creating menus and editing Draw text while a SuperCard project runs.

The update also comes with a new Online SuperTalk script-language help system, which is available in the scripting windows of both SuperCard and SuperEdit, the companion editing utility that ships as part of the product.

SuperCard has a suggested retail price of \$299. The 1.6 update, available in the third quarter of 1991, will cost \$50 (U.S., plus applicable tax and shipping) for those who currently own any earlier version of SuperCard, and be free to those who purchase SuperCard 1.5 after June 26, 1991.


This latest version will also assume the Aldus packaging identity, in keeping with the branding transition for the Silicon Beach Software product line. 

## Portables to the Persian Gulf

We send congratulations to the many segments of the Washington, DC Apple community—User Groups, Apple, dealers, and developers—who teamed up earlier this year to send off 20 Macintosh Portables to the Persian Gulf.

Apple donated the machines, and the Pentagon Macintosh User Group (PMUG) worked with local dealer Falcon Microsystems to prepare them for shipment. PMUG volunteers gathered on a holiday morning to install software donated by Claris and DC-area developers FedSoft and One Mile Up.

In just one month (undoubtedly a record for government procurement!), the machines had been requested and delivered to the Joint Information Bureaus in Saudi Arabia.

Kudos to PMUG for bringing members of the Apple community together on this worthwhile project! 



Members' Small Adverts are FREE.  
Please help us to help you. Send your  
advertisements to us on a disk, in Mac  
or Apple II text format. We will return  
the disk, of course. This saves us time,  
and avoids errors.

# Members' Small Ads

Members' Small Adverts are FREE.  
We reserve the right to edit and or omit  
them. They are placed in this Magazine  
in good faith. Apple2000 holds no  
responsibility over items advertised, and  
buyers purchase at their own risk.

**WARNING: The sale of copied or pirated software is illegal.  
Please ensure that items offered for sale are new or are re-registered.**

## WANTED VERY URGENTLY

'Project Planner' software package produced by Applitech Software Inc. and suitable to run on Apple //e, //c, etc.

'Phone Peter Richardson (day/evenings).....01974 410000

## WANTED

Apple II+ Plug in cards. Must be cheap. Working or not. What have you.

'Phone Mike .....01974 410000

## FOR SALE

1. Iigs system 1K Ram. Apple RGB colour monitor. Apple 3.5" drive.  
Mouse. SCSI card. Requires transformer (110v). With manuals  
and disks (including GS/OS operating system) .....£470  
2. Appleworks GS version 1.1 (including Using Appleworks GS by  
Douglas L. Brown) .....£140  
3. Timeworks Publish It! .....£20  
4. Silent Service .....£10  
5. Typing Tutor 4 .....£10  
Goods despatched once cheque has cleared. All plus P&P at cost.

'Phone John (anytime).....01974 410000

## FOR SALE

Apple //e with twin disc drive plus controller card  
Monitor with Green Screen  
Z80 Card  
80 Column/64K Memory expansion card  
Super Serial Card for Printer Control.  
All in clean condition and working!! .....£70 the lot.

'Phone Harry Lampard (evenings and weekends).....01974 410000

## FOR SALE

4 used Mac keyboards. 1 with integral keypad, 3 with separate  
keypads .....Offers, please

'Phone Mark Townsend .....01974 410000

## FOR SALE

Apple SCSI Card (Rev C7)  
Apple 5.25" Disk Drive (19 or 20 Pin)  
Apple Super Serial Card (with Cable)  
Apple 2gs Programmer's Software and Books  
Orca/C, C Compiler.  
Orca/M, Assembler.  
Orca Disassembler.  
ToolBox Reference Volumes 1,2 & 3  
Hardware Ref. Firmware Ref.  
GS/OS Ref Vols 1&2 beta,  
All issues of Call Apple  
plus about another 9" of good programming books!  
Offers please

'Phone Jeremy Guinn (days/evenings).....01974 410000

## FOR SALE

Save over £100 on new price. Hardly used and brand new Laser  
3.5" floppy drive with Laser Universal Disk Controller card so it can  
be used with Apple Macs or IIs.

Yours for £150 including postage & packing.

'Phone Ian .....01974 410000

## FOR SALE

1. 'dBase Mac' Relational database. Original manual lost, but selling  
with 2 books on dBase Mac, "Using dBase Mac" and "dBase Mac  
in Business" by Ashton-Tate, and wall poster (Any Mac) ....£15
  2. 'Freedom of the Press Light' Postscript Language Interpreter.  
Allows you to print postscript and eps files, fonts, pictures,  
drawings etc. to a host of non-postscript printers including the HP  
DeskWriter, GCC PLP II, Apple ImageWriter and IISC amongst over  
60 printers from 22 different makes. Call to see if your printer is  
supported. (System 7 savvy) (Any Mac) .....£50
  3. 'MultiDisk' Hard Disk partitioning software with Password  
Protection (System 7 savvy) and Manual (Any Mac) .....£10
  4. 'Reflex for the Mac' Relational Database with Manual (Any Mac). £25
  5. Buzzbox 300 baud Modem (Any Apple) .....£10
  6. Déjà Vu with Manual (Mac Plus or SE) .....£7
  7. Enchanted Scepters Adv. Game with Manual (Mac Plus or SE) £7
  8. Gauntlet Arcade Game with Manual (Mac Plus and above) ..£7
  9. Mac Attack with Manual (Mac Plus or SE) .....£5
  10. Shadowgate c/w Hint Book and Manual (Mac Plus or above) £10
  11. Solitaire Royal Card Games with Manual (Mac Plus or SE) ..£7
  12. The Colony Adv. Game with Manual (Mac Plus and above) ....£7
  13. The Guild of Thieves with Manual (Mac Plus or SE) .....£7
  14. Vision80 Zofary 80 Column Card and Manual (II+ or //c) £25
  15. 16K RAM Card Cordless Type (II+) .....£15
  16. Videx Videoterm80 card inc inv ROM 2nd Char EPROM &  
Manual (II+, //c) .....£30
- all the above plus P&P at cost.

'Phone P F Wilson .....01974 410000

## FOR SALE

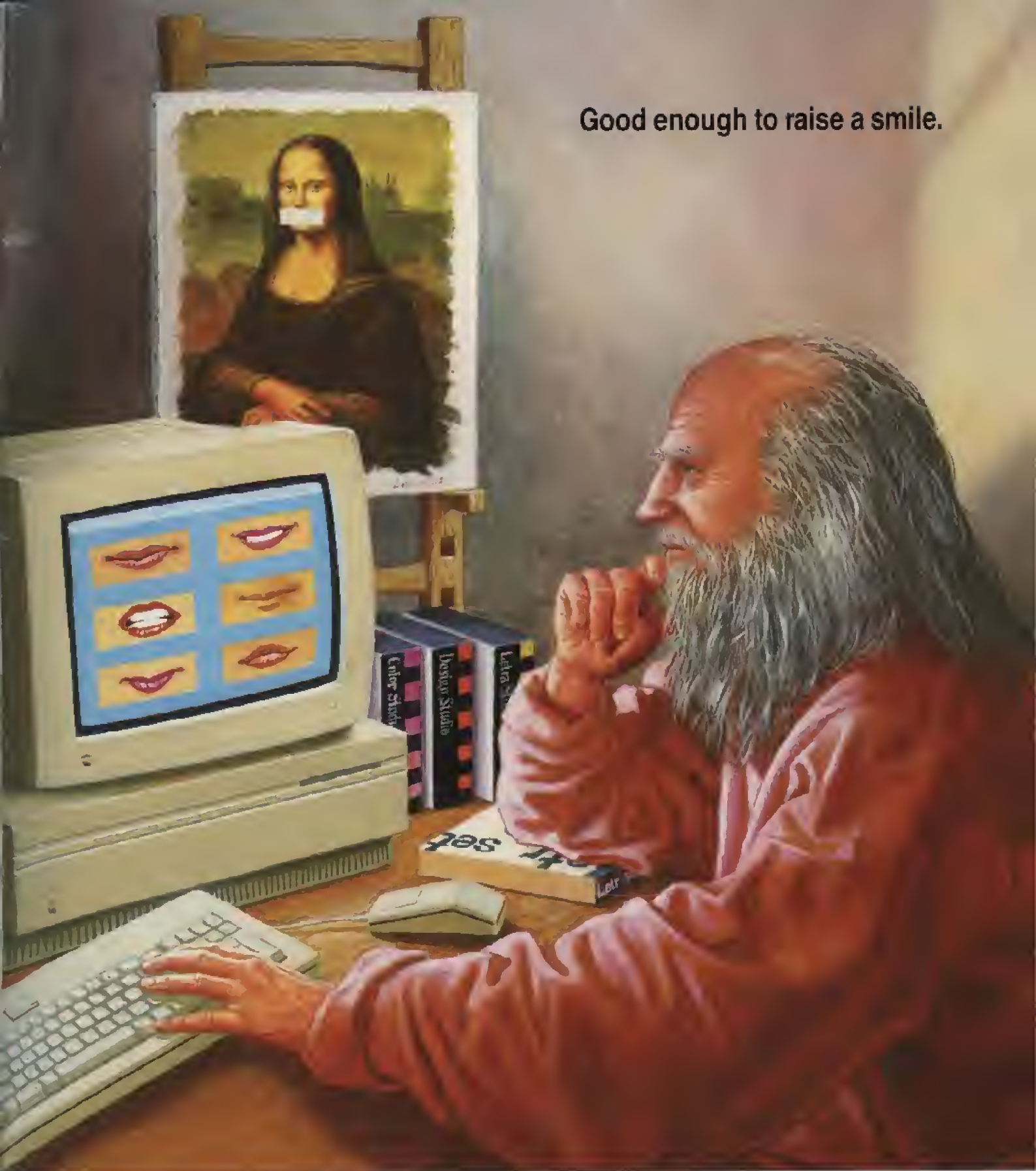
1. Apple IIe computer with 64K extended 80-column card, single  
Disk II Drive with controller card, BMC green Monitor, games  
paddles, Apple Parallel Printer Interface card .....£150
  2. Microvitec RGB Medium Resolution 14" Colour Monitor with  
card/cables and manual for IIe/II+ .....£100
  3. Graphic Mouse (with software and manual) .....£30
  4. Apple II+ Videx Videoterm 80 column card .....£10
  5. Apple II+ Numeric Keypad/card/cable .....£10
  6. Omnis 2 Database (unused, as new) .....£30
  7. DB Master 4 (unused, as new) .....£30
  8. High Technology Information Master Data Base .....£10
  9. Mousedesk 2, software and manual .....£10
- All items plus postage.

'Phone Andrew (evenings Mon-Fri) .....01974 410000

## Advertisers' Index

A2 Central	13	Comtec	37
Bidmuthin Technologies Ltd	OBC	Holdens Computer Services	59
Blyth Software	51	Laser Recharge Ltd	47
Celtip Computers	69	Letraset UK	IBC
Chameleon Systems	63	MacLine	40,41
Claris	IFC	MGA SoftCat	29,39
Clocktower	25,65		

Good enough to raise a smile.



Whether or not you have the talents of Da Vinci, Letraset graphics software can turn you into a veritable Renaissance Man. LetraStudio™ software gives you custom display and type effects with precise kerning, spacing and more. DesignStudio™ software is an electronic drawing board with versatile text, image and layout manipulation. And ColorStudio™ software puts colour and pre-press power at your fingertips. Put them all on your Apple Macintosh® and bring your studio out of the Middle Ages

# Letraset®

Graphic Design Software

Please send details of Letraset Graphic Design Software.

Name

Company

Address

Postcode  Tel

To: Letraset UK, 35A Hermitage Road,  
Hitchin, Herts SG5 1BY.  
Telephone: 071 928 7651 Fax: 071 633 9458

It's all in The Book!

\* Apple and Macintosh are registered trademarks of Apple Computers.  
LetraStudio, DesignStudio and ColorStudio are trademarks of Esselte Letraset Ltd.  
© ESSELTE Letraset is a registered trademark of Esselte Letraset Ltd.



# BIDMUTHIN TECHNOLOGIES

Apple II/Mac Specialists

---



## **CORPORATE POWER FOR SMALL BUSINESSES**

Bidmuthin Technologies Ltd. is one of the best Level 1 Apple Service Centres in the country. Our fast, friendly and efficient service department is growing rapidly and **all our service staff are trained by Apple (UK) Ltd.**

We can offer you complete Macintosh systems at competitive prices, as well as a first class after sales and repair service ...from reviving a dead mouse - to rectifying a complete systems failure. Enquiries on 081-868 4400

**• AUTHORISED APPLE DEALER • AUTHORISED APPLE II DEALER •  
AUTHORISED EDUCATIONAL DEALER • MACINTOSH SYSTEMS TO SUIT  
ALL REQUIREMENTS • NETWORKS - SET UP AND TROUBLE-SHOOTING  
• DATA TRANSLATION • MAINTENANCE CONTRACTS • UPGRADES •  
FULLY TRAINED ENGINEERS • MAC WORKSHOPS**

---

Bidmuthin Technologies Ltd., Chase House, The Chase, Pinner, Middlesex,  
HA5 5RX. Tel: 081-868 4400